About the book Quest of Creation Higgs; God particle and Vedas; The book explore the foundation of Vedic Science in the light of most exciting discovery of the decade, the Higgs; God particle by CERN scientists It explores antiquity of India and Indian Science with graphical confirmation from Indus Valley seals. The decoding of Vedas reveals the fact that the Indus Valley was counter part of Vedic culture. The discovery of Higgs; God particle is a important step to understand the universe and life on the earth. They can get further clues from the Vedas.

Quest of Creation

Chandra Prakash Trivedi
Aseem Trivedi

Quest of creation Higgs;God particle& Vedas

Quest of Creation

Chandra Prakash Trivedi

About the Author Dr. C.P. Trivedi, Former Principal, MJS P.G. College, Bhind, M.P. former senior fellow, Department of culture, Govt., Associate, Indian Institute of Advanced Study, Shimla is an Environmental Scientist, and Vedic Scholar. As a professor and Scientist he has gone into the depth of Yoga, Meditation, Spiritualism, and Vedas.

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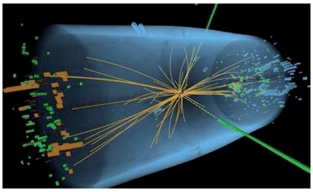
The Quest of Creation



Higgs; God particle and Vedas

Dr. C.P. Trivedi
Assisted by Aseem Trivedi

The Quest of Creation
Higgs; God particle and Vedas

Dedication

Dedicated to
Ancient path making seers and
Modern CERN Scientists

Offer you to Yama most honeyed, and stand forth; this homage to the former - born, the former, the path making seers Atharvaveda

Dr. C. P. Trivedi
Assisted by Aseem Trivedi
Vedic Research Institute, Ratlam
457001 India
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The Quest of Creation
Higgs; God particle and Vedas

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1. Preface

The Vedas are the oldest literary record of human civilization on the earth. The UNESCO has included the Rig-Veda in the list of world heritage. As such they represent common heritage of human society on the earth.

"What can be more tedious than the Veda, and yet what can be more interesting, if once we know that it is the first word spoken by the Aryan man?" These are words of F. Max Muller, who has the credit to introduce Vedas in the world.
The discovery of Indus Valley Civilization has opened a new chapter in the world. It has pushed antiquity of India far back in the past, but with a question mark on Aryan invasion?
Foundation of Vedas and Vedic language code is in the modern Science and Higgs; God particle.

The Indus Valley was scientifically developed. The Vedas and Indus Valley reveals India's glorious past. My forty years journey into the glorious past of India and modern science has got sudden push with the discovery of Higgs; God particle, it can give new direction to the Scholars to interpret Vedic language, Indus script and seals, on which they have no consensus even after the so much development of Science. It is the the root cause of unrest and corruption in India.Because,

we have kept our inheritance in the vicinity of miracles and myths, and unable to taught our youth the ethics in life.

The discovery of God particle; Higgs Boson is not new for India. The Indian Vedic Scientists and the seers have traced the same long back. It has been described as Creator; *Viśvakarma Puruṣa; Hiraṇyagarbha, and Prajapati in the Vedas.* The same has been described as Creator Brahma in Upnishads, Allaha or Khuda in Holy Quraan, Almighty God in Bible, and Ahur Mazda in Avesta as omnipotent, omnipresent, and omniscient creator.

In Gītā, Lord Kṛṣṇa eradicated the superstitions of Arjuna about God and Soul and satisfied his quest through this knowledge by saying **The soul is unborn, eternal, everlasting, omnipresent, immovable, constant, and everlasting. It is beyond cutting, drying, and fire-proof. The Brahma and the individual self are the same. The God - Brahma can bestow blessings, but it can not share the sins of individual. The heavenly dreams about it, gives mirage of hope in unseen mystery. It is the cause of unrest with confused mind.**

The Vedic science in the Vedic hymns has its beginning, with discovery of single unified force of the creation, and Higgs field; God particle. The same has been discovered in the modern science recently.

The Vedic language is a symbolic coded language, where the words are only indicator of phenomena. The symbolism has been used to express the knowledge with metaphors. The Sanskrit is only a script to express the words as symbols. The excavated Indus Valley seals and tablets belongs to contemporary institutes of higher education, they were

prepared for demonstration and teaching with their literary text in Vedic metaphors, and symbols engraved on the seals. The metaphors are for teaching through symbolism, and the riddles are for the examination.

A teacher and a professor can understand the importance of metaphors and riddles in day to day life to explain the knowledge in a simple ways so that the student can grasp the knowledge in it. The Vedas have been preserved through a complicated and highly strenuous oral tradition. With the great skill and labour of the Vedic people, it has reached to us without break even after many thousand years. It is our humble duty as a human being to interpret them in their proper sequence for the welfare of the society.

The seers in the beginning of Vedic hymns have traced origin and evolution of the creation in a symbolic way from the fundamental energy. It is due to the discovery of original source of creation. It is an essential part of the teaching to start the subject from its original source and gradually enter into the depth of the subject. Accordingly, the way of expression and knowledge is the same but with different metaphors, which lead to the depth of subject concern with praise prayers in the background. All seers have used the same terminology of the deities with different metaphoric expressions.

In the same fashion the Vedic texts move forward with their contemporary knowledge in the background. Accordingly, only a subject expert and scientist can grasp and touch the height of the Vedic knowledge. The interpretation of Vedic metaphor reveals all the modern scientific theories and the cosmic principles. It has been explained in detail in an

anthropomorphic manner symbolically that how the natural forces are working at molecular level.

Higgs; God particle has further opened the key to decode Vedas.

A invisible field lying across the universe gives particles their mass, allowing them to clump together to form stars and planets.

The same has been expressed in *Puruṣa Sukta*, which explain the origin of the universe from eternal energy.

Higgs; God particle

An invisible **field** lying across the universe give particles their mass, allowing them to clump together to form stars and planets.

Foundation of Vedas

From him Virāj was born; again Puruṣa from Virāj was born.

As soon as he was born he spread and than earth and planets Ṛg.10-90.5

Let us with tuneful skill proclaim these generations of the Gods, that one may see them when these hymns are chanted in a future age Ṛg.10-72 1

With the scientific interpretation of the Vedic metaphors, the decipherment of the Indus Valley seals is possible. For which India and Indian culture were awaiting since long.

It will also reveal the fact that once in the history Vedic culture flourished on the earth, without it such scientific work is not possible, it is also not possible that through meditation in the state of trance, such knowledge can be explored?

Global warming

Global warming is a modern threat for existence of life on the earth. It seems that the earth may have faced this situation

earlier too as expressed in the *Atharvaveda* Ath. 10-8-39

As between heaven-and earth Agni went, burning on, all-consuming, where stood beyond they of one husband - where perchance was mataris̒van then ?Atharvaveda 10-8-40

Mataris̒van was entered into the waters; the gods were entered into the seas; great stood the traverser of space; the purifying one entered into the green ones.

The Vedic seers have drawn the picture of the global warming. It has been indicated that during the period when in between earth and heaven fire go on burning and consuming all. It means due to the global warming, earth and heaven will have no difference. Looking to this a question has been asked? If such a condition will be there, in that condition where will be the lord of heaven and earth (fundamental energy)? Where will be the *Mataris̒van* (CO_2)? It has been expressed here that the lord of heaven and earth (fundamental energy) will be in the mid of space and *Mataris̒van* will enter into the water. It means it will be in the dissolved condition, the natural forces will remain in the ocean of the sky. The purifying one will enter in to the green one. It suggests that air purifier (chlorophyll) will be in the dormant condition. As we know that during unfavourable conditions the prokaryotes can form the cyst, they reproduce with the return of favourable conditions. As such after catastrophe the process of evolution will again start similarly as before, with the power of *Gāyatrī* -fundamental particles (electron, proton and neutron). *The Gāyatrī* has been described as immortal -*Amṛit*. The seer who has the knowledge about the synthesis of the substances, he can explain about the unseen fundamental bond energy, which binds the atoms Atharvaveda10-8-41

Higher, as it were, than the Gāyatrī, upon the immortal (Amṛit) he strode out; they who knows completely chant with chant-where then was seen the unborn one (aja).

Age of the Vedic Culture

As regard the age of the Veda and Vedic culture is there, it has been regarded that Vedic hymns have been formulated around 2000 to 4000 years B.C. The Archaeologists, Historians and Astronomers have different views regarding the age of Vedic hymns and they have no consensus over it. Looking to the depth of the Vedic knowledge in the light of modern science, it seems that the Vedic culture may have flourished on the earth before the ice age and 'Green house Effect' and consequent Global warming had forced them to compile their knowledge in Vedic hymns.

As per the Hamburg Institute of Meteorology of Max Planck Society, Germany under a project on **Climap** has reported that identical to ''Green house Effect'' and consequent Global warming had occurred about 18000 years ago and a consequent ice age was there and North America, Europe and Siberia were covered with thick snow cover in between Siberia and Alaska a Land bridge was formed through which people were migrated.(German News Sept. 89, Page 25).

It reveals the fact that present development of the civilization goes back to 18000 years and the discovery of Vedic scientific theories were prior to the ice age on the earth, it has been preserved in the traditions and Vedic hymns. The scientifically developed Indus Valley reflects its physical ruins and hoofs of their scientific achievements.

The Quest of Creation Higgs; God particle & Vedas

I feel great honour to acknowledge the assistance and support during the long period of 45 years of research and teaching in the field. I have been assisted by Department of Culture, Government of India, University Grants Commission, New Delhi, Indian Institute of Advance Study, Shimla, department of Higher education, Govt. of M.P. and Archaeological Survey of India for facility to study the Indus Valley seals and tablets. I also feel obliged to CERN Scientists for the discovery of Higgs; God particle.

If there is any mistake or short coming in the book. I feel personally sorry for them, the suggestion if any will be my honour.

Dr. C. P. Trivedi
Vedic Research Institute
Ratlam 457001

15th August 2012
Independence Day
Indore

XXXX

2. Higgs; God particle

Introduction

The particle is one of the smallest units of matter, which experts say is the key to understanding why matter has mass.

Two teams, the CMS and Atlas, with about 3,000 scientists, were looking for the Higgs Boson, the subatomic particle considered to be the cause for creating mass.

The new particle is 125 times the mass of a proton. Without this new particle, matter would not exist.

The teams have built the most complicated machines ever, like the Large Hadron Collider, the particle accelerator where proton-photon collisions are used to search for the Higgs Boson. The multination project cost about $10 billion (Rs 55,000 crore).

The particle is named after University of Edinburgh physicist Dr Peter Higgs, who was one of six physicists in the 1960s who suggested that a kind of cosmic molass pervading space is what gives particles their heft. Higgs pointed out that these cosmic molasses would have their own quantum particle, so the branding rights went to him. The particle is also partly named after legendary Indian scientist Satyendra Nath Bose, who worked with Albert Einstein in the 1920s and made

discoveries that led to the most coveted prize in particle physics.

A large number of Indian scientists, representing the Saha Institute of Nuclear Physics in Kolkata, the Tata Institute of Fundamental Research in Mumbai, the Harishchandra Research Institute in Allahabad and the Institute of Physics in Bhubaneswar were also involved in the world's most ambitious experiment over the years.

The Higgs; and Vedas

The **Higgs boson** or **God particle** is a proposed elementary particle in the Standard Model of particle physics.

It would prove the existence of the hypothetical **Higgs field**ț the simplest of several proposed explanations for the origin of the symmetry-breaking mechanism by which elementary particles acquire mass.

The leading explanation is that a field exists that has non-zero strength everywhereț even in otherwise empty spaceț and that particles acquire mass by interacting with this so-called Higgs field.

The Higgs boson is named for Peter Higgs who, along with two other teams, proposed the mechanism that suggested such a particle in 1964 and was the only one to explicitly predict the massive particle and identify some of its theoretical properties. In mainstream media it is often referred to as "the God particle", after the title of Leon Lederman’s book 1993

The Quest of Creation Higgs; God particle & Vedas

According to the Standard Model, the Higgs particle is a boson, a type of particle that allows multiple identical particles to exist in the same place in the same quantum state. It has no spin, electric charge. It is also very unstable, decaying into other particles almost immediately.

The discovery of God particle; Higgs Boson is not new for India. The Indian Vedic Scientists and the seers have traced the same long back. It has been described as Creator; *Viśvakarma Puruṣa; Hiraṇyagarbha, and Prajapati in the Vedas.*

In Gītā, Lord Kṛṣṇa eradicated superstitions of Arjuna about God and Soul and satisfied his quest of through this knowledge by saying "The soul is unborn, eternal, everlasting, omnipresent, immovable, constant, and everlasting. It is beyond cutting, drying, and fire-proof. The Brahma and the individual self are the same. The God - Brahma, can bestow blessings, but it can not share the sins of individual. The heavenly dreams about it, gives mirage of hope in unseen mystery. It is the cause of unrest with confused mind."

<u>Gods' tongue is truly Amrita's centre</u>

The space enclosed in the nucleus of the atom it impart the gravity to the atom and bind atom in series, it is building block of the creation. The space enclosed within the nucleus has been termed as tongue of elementary particles. It has imparted gravity to millions of other particles in series. The same has been termed as Higgs ṣ the modern God particle.

Indian concept start from that no body has created the

creation. It has developed under space time and environmental condition.

Once only once, the heaven was made, once only once, the earth was formed. Once only Priśni's milk was shed; no second, after this, is born Rig-Veda 6-48-22

It has been expressed that the earth and the atmosphere have been created once only, the *Priśni* is name of cow, who give all type of food. It is metaphor for food with photosynthesis and generation of chemical energy in plants, which feed the creation. Once the process of the creation has been started, it has maintained its continuity with evolution.

The creation has evolved from a fundamental energy from the universe. It has entered into the nucleus of the atom, and imparted the gravity to the atom.

It explains the origin of the universe from eternal energy.

From him Virāj was born; again Puruṣa from Virāj was born.

As soon as he was born he spread eastward and westward o'er the earth Ṛg.10-90.5

When Gods prepared the sacrifice with Puruṣa as their offering,

Its oil was spring, the holy gift was autumn; summer was the wood Ṛg.10-90-6

It has been expressed that from the infinite eternal energy infinite universe was born, in turn again the eternal energy from infinite sky was born, as soon as he born, he spread eastwatd and westward. After this the earth and the planets have came into existence. The Gods; elementary particles have started inter actions with eternal fundamental energy, the

seasonal variations act as fuel.

*He who hath eyes on all sides, round about him, a mouth on all sides, arms and feet on all sides. He the Sole God, producing earth and heaven, weldeth them, with his arms as wings, together Rig.10-**8**1-3*

The bond energy of the atoms has been expressed, that it is just like his arm as wings, which bind the atoms. The space which has imparted gravity is omnipresent. It is present within us also.

Ye thoughtful men enquire within your spirit whereon he stood when he established all things Rg.10-81-4

It has been expressed that the sole God- fundamental energy has produced the creation, he is present everywhere, and within you also.

The same has been also described by Freedman, David Böhm, and Alain Aspect in 1985, the force which bind the nucleus in the atom is unified.

The building block of the creation is nucleus in the atom.

"Discovery of the Higgs Boson is a very important and a necessary clue to our understanding of the subatomic world and indeed why the universe exists,"

"You and I exist because of this particle, though I hate to call it the God particle," said Professor Vivek Sharma.

Two major experiments, one headed by Sharma, confirmed the existence of the sub-atomic particle. The discovery is being hailed as one of the most path breaking in modern times.

"They were thinking of the origin of the world and from where the mass came to the world. It moved me and has

driven me to pursue answers for the ancient question. By the technology of today I am now answering the curiosity posed by my ancestors thousands of years ago."

When he was a child, Sharma's mother, a Sanskrit scholar, had told him that the 'Song of Creation' in the Rig Veda says the world was void and formless in the beginning and it was utter chaos. The words moved the young boy.

"The song was a record of what the sages saw and thought thousands of years ago," Sharma had told.

It has inspired me to bring the Vedic knowledge in light, and to decode the Vedic language code. How much I am successful is for the Scientists and scholars to assess, but I feel that it can give new direction for further research on Vedas and DNA.

Pre-cosmic condition

Then was not non--existent nor existent: there was no realm of air, no sky beyond. What covered in and where? And what gave shelter? Was water there, unfathomed depth of water? Ṛg. 10-129-1

Death was not then, nor was there aught immortal: no sign was there, the day's and night's divider.

That One Thing, breathless, breathed by its own nature: a part from it was nothing what so ever Ṛg. 10-129-2

Prior to the origin of cosmos, when neither time nor space was created, it has been expressed *then was not non--existent nor existent:* in this pre cosmic condition, there was only one force, which began to disintegrate from infinite to finite with its back ground in the infinite cosmos. It has been expressed symbolically through breathless, breathed by its own nature.

Accordingly, the forces of nature came in to function with generation of heat energy.

The heat energy is the pioneer energy, which has generated the fundamental particles of the nature. It has been expressed through the words 'great power of warmth' in the pre-cosmic condition, where neither time nor space was born, at that time only deep darkness was there Ṛg.10-129-3

Darkness there was: at first concealed in darkness this all was in discriminated chaos.

All that existed then was void and form- less: by the great power of Warmth was born that Unit Ṛg.10-129-3

How the cosmos came in to function? It has been expressed symbolically by the origin of the desire in the beginning, *Desire the primeval seed and germ of Spirit.*

With Jagatī the flood in heaven he established and saw the sun in the Rathantara Sāman. Gāyatrī hath, they say, three brands for kindling: hence it excels in majesty and vigour Ṛg. 1-164-25

The *Jagatī* is the place in the atmospheric ocean, where the high energetic solar winds are trapped by the earth's magnetosphere, (*Gāyatrī's* three bands are three fundamental particles) where the three fundamental particles- electron, proton and neutron are converted into the ions, hence it excels in majesty and vigour. It has been expressed that the high energetic solar winds are just like the flood in heaven, they are trapped by the earth's magnetosphere, it has been indicated by the sun in the *Rathantara Sāman,* the base of the creation is ions of the molecules, hence it has been expressed symbolically that with *Jagatī - ions,* he get the establishment

Ṛg.1-164-25

The physical building block

Back forward goes he grasped by strength inherent the Immortal born the brother of the mortal. Ceaseless they move in opposite direction: men mark the one and fail to mark the other. Rg. 1-164-38

The generation of the immortal Higgs field has been expressed, which has inherent strength to give mass. It has been expressed as immortal in the house of mortals as brother. The synthesis and degradation ceaselessly move in opposite direction. But the men mark only the mortal living-beings. He is unable to mark the immortal.

The full from the full he bends up (ud-ac); the full is poured with the full; also that may we know today, whence that is poured out Atharvaveda 10-8-29

The space along the universe is complete in it self, from it the space enclosed in the nucleus - God particle acquired the mass. Which is complete in it self. We should know, when it has been poured out?

This beautiful one (F) (is) un-ageing, an immortal in the house of a mortal; for whom she (was) made, he lies; he who made (her) grew old Atharvaveda 10-8-26

The space enclosed in the God particle/ cell body is un-ageing, an immortal in the house of mortal.

It appears for the bio-soul in the cell body, the cell body has prepared the house for it. It is subject to ageing.

The building block of the creation is atom and the building block of the living-beings is DNA, which is universally

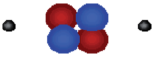
present in the biological world.

The building block of the creation is nucleus in the atom.

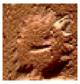
Sear Figure 1

FORTH from the ocean sprang the wave of sweetness: together with, the stalk it turned to Amrita.

That which is holy oil's mysterious title: but the Gods' tongue is truly Amṛit's centre Rig. 4-58-1



The space enclosed in the nucleus of the atom it impart the gravity to the atom and bind diatomic and polyatomic in series, it is building block of the creation. It has been termed as tongue and expressed on the Indus Valley seal as space on the mouth.

 The tongue - nucleus,

The waves of sweetness

Symbolically showing the flow of elementary particles from the sun symbolically- cosmos, the leaf is the symbol of photosynthesis, which feed the creation with organic evolution.

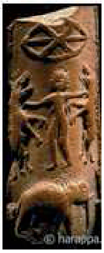


Figure 2

The wheel with six spoke-The creation is working under the temperature gradient of six seasons.

Let us declare aloud the name of Ghṛta, and at this sacrifice hold it up with homage. So let the Brahman hear the praise we utter. This hath the four-horned Buffalo emitted Ṛg.4-58-2

The creation is held up by the four components, the three elementary particles and space within the nucleus Higgs; God particle. It has produced the DNA De oxy ribose Nucleic Acid, which is universally present in the biological world.

The structure of DNA

Four are his horns, three are the feet that bear him; his heads are two, his hands are seven in number.

Bound with a triple bond the Steer roars loudly: the mighty God hath entered in to mortals Ṛg.4-58-3

The four horns - The four horns is a symbolic expression for four bases of DNA, they are universally present in the living-beings,

Three legs - the DNA execute its function with triplet genetic

code, the triplet genetic code is just like his three legs for its function.

Two head- The two helix of DNA are just like his two head.

Seven hands- The triplet nucleotide pairs have two hydrogen double bond and a hydrogen triple bond. = it is just like the seven hands for actions.

Triple bond - The DNA replication and synthesis depends on the hydrogen triple bond, it has been explained by saying that 'bounds with the triple bond the DNA roars loudly just like a steer.

The DNA is universally present in the living-beings, they are subject to birth and death, hence it has been expressed that the mighty God-DNA has entered into mortals.

The creation system

The creation is working as a system. The elementary particles have finds their place in space concealed in atom, and the creation system operates and assisted by three cosmic principles.

That oil in triple shape the Gods discovered lay down within the Cow, concealed by Paṇis.

Indra produced one shape, Sūryā another: by their own power they formed the third from Veṇa Ṛg.4-58-4

The Indra - electricity has produced electro magnetic bond energy. It regulates the creation by synthesis and degradation with time. It maintains the equilibrium in the system.

Sun feed the creation with elementary particles.

The third they have prepared at their own from Veṇa, the DNA and its role in birth and death of the living-beings

It has been depicted on seal with symbolic structure of DNA

Run thou past the two four eyed brindled dogs of Sarama, by a happy road; then go unto the beneficent Fathers, who revel in common revelry with Yama. Atharvaveda, 18-2-11.

What two defending dogs thou hast, O Yama, four eyed, sitting by the road, men watching, with them, O king, do thou surround him; assign to him well being and freedom from disease. Atharvaveda*,* 18-2-12

The yama is term for the chromosome, which consist of DNA, the *Yama's* two brindled dogs four eyed watch the path of man, it means they represents two helix of the DNA and the four eyes represents two base pairs, who watch the path of man.

The *Yama* is term for the Chromosome, and *Vivasvat* is term for DNA, from the DNA chromosome has been synthesized.

It has been expressed that in the biological world, which is before us, I see nothing beyond *Vivasvat* - DNA. From the DNA the chromosomes have been synthesized. They have stretched in the world in the form of food chains and the food webs.

The living-beings exhibit their functions of life cycle under the cosmic principles. During life the three energies, shows their impact in orderly sequence under cosmic principles and remain unaffected, it has been indicated by three with long

tresses show in ordered season.

Three with long tresses show in ordered season. One of them sheareth when the year is ended. One with his powers the universe regardeth: of one the sweep is seen, but his figure Ṛg. 1-164-44

The synthesis and disintegration in the living cell body is controlled by the **electromagnetic bond energy,** during the life it synthesizes the cellular body and the same disintegrate the body after death.

One with his powers the universe regardeth:

One regardeth from all sides, it is the **chemical energy** of the food, which enhance the metabolic reactions in the body and protect the body from all sides during the life time.

Of one the sweep is seen, but his figure.

The life energy-consciousness appears with birth and disappears with end of life cycle.

The life energy- consciousness in the body shows motion but his figure is not seen.

The three energies shows their impact in orderly sequence under cosmic principles, it has been expressed.

The experiences of the seers have been compiled in the Vedas, looking to the probable ecological, natural disaster, or nuclear threat. Where, the Ṛgveda is the first, and other Vedas have taken their shape with time.

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3. Decoding of the Vedic language code

1. Introduction

The Vedas are the oldest literary record of human civilization on the earth. The UNESCO has included the Rig-Veda in the list of world heritage. As such they represent common heritage of human society on the earth. Hence decoding of the Vedic language is a matter of interest for all, with an international interest. Accordingly to decode the Vedic language a search has been done. The Vedas have been preserved through a complicated and highly strenuous oral tradition. The Vedic language in its true sense is not a common language; the Sanskrit is only a script to express the words as symbols. The chanting of the Vedic praise songs is a scientific way to preserve the Vedic text.

With the great skill and labour of the Vedic people, it has reached to us without break even after many thousand years. It is our humble duty as a human-being to interpret them in their proper sequence for the welfare of the society, as expressed in Rig-Veda10-72-1

Let us with tuneful skill proclaim these generations of the Gods, that one may see them when these hymns are chanted in a future age Rig-Veda 10-72 1.

No ancient or modern lexicon has interpreted the Vedic

hymns in terms of science, because it was unimaginable. The modern scientific theories and the principles have been discovered only during the last two century; surprisingly they have been incorporated in the Vedic hymns. It suggests that now we are more near to the Vedic knowledge. The tragedy before modern scholars is that oriental scholars are not acquainted or unaware with the principles and theories of modern science, similarly the modern scientists are not acquainted or unaware with the Vedic literature and Sanskrit, so far as there knowledge of the Vedic literature and Sanskrit is concern.

The Vedic hymns have been compiled by different *seers*. The Vedic books are supposed to be the family books of the seers. Looking to the depth of knowledge in the Vedic hymns it seems that the seers of the hymns are the subject expert and head of the contemporary institutes of knowledge.

The seers in the beginning of Vedic hymns have traced origin and evolution of the creation in a symbolic way from the fundamental energy. It is an essential part of the teaching to start the subject from its original source and gradually enter into the depth of the subject. Accordingly, the way of expression and knowledge is the same but with different metaphors, which lead to the depth of subject concern with praise prayers in the background, where words indicate the phenomenon at micro level. All the seers have used the same terminology of the deities with different metaphoric expressions, indicating the origin of solar system and sun as the main source of energy. The metaphors will look like 'headless and footless', without the concern knowledge with reference to the context. They have indicated the origin of the

creation and nature from the fundamental energy. The generation of charged particles is the first step. Accordingly the solar system, from nebula came into the existence. The earth became the centre for the origin of life. The formation of the atmospheric layers, generation of ions in the ionosphere and formation of ozone layer in the atmosphere are the essential factor for the origin of life.

The white visible-light with seven rays and formation of atom have constituted the base of creation. The generation of the magnetic energy in the atom and electromagnetic bond energy is the main cause of creation. The major elements of the creation are Carbon, Hydrogen and Oxygen. They have been termed, as *Matriśva, Pavmān, and Indu* respectively. The Indra is term for the electricity; the Soma is a term for the magnetic energy,

The origin and evolution of the creation from a fundamental energy has been described in *Puruṣa sūkta*, where the fundamental energy has been imagined symbolically in the form of a man. The fundamental energy is universally present every where. The nature feed the creation just like mother, under the nature and the natural forces.

The white visible light with Red wavelength has got the entry into the earth's atmosphere through ozone layer. With time carbon dioxide and water with the help of *Bhṛgu* (chlorophyll) converted the Red wavelength of light into the chemical-energy. The *Aśvins*- nucleotide pairs of DNA stimulated the process of evolution. The *Tvaṣṭa* - DNA De oxy ribose nucleic Acid with four bases is a universal genetic material. It is the base of living-beings with generation of life energy in the primitive prokaryotic cell.

They have summarise the thoughts, with focus on the single unified force as the creator, the atom is the building block of the creation, the DNA with four base is the building block of the living-beings, the life energy, the chemical energy of photosynthesis, the electromagnetic bond energy, with impact of *Vāc*- thought energy are playing, their role under the cosmic principles.

These thoughts have been woven in the metaphors, so as to teach the students to acquaint them with phenomena and reactions in the nature at micro level. Just like a teacher teach to his students and examine them with asking answers of the riddles. It is the theme of the hymns, which move forward gradually into the depth of the subject concern.

As reflected in the book four seer *scientists Vamdeo son of Gotam* belongs to school of Biology, where he has traced the origin and evolution of the creation with reference to the origin of life and consciousness, and gone into the depth of biology, exploring the *Ṛbhu* as celestial race.

Similarly the seer *Dirghtamas* belongs to the school of cosmic science. He has traced the origin and evolution of the creation with reference to the solar system and seasonal variation in the system, and how the system is working. He has described it in the book one from hymns 150 to 175.

The scientific facts, which have been revealed in the Vedic hymns, are in tune with the modern science at present. The higher Vedic knowledge, just like, the consciousness, the role of thought energy in life, the words and pictures are thought stimulators, they stimulate the language of DNA is awaiting to be recognised by the modern Scientists.

2. Material and Method

The Quest of Creation Higgs; God particle & Vedas

The interpretation of the Vedic hymns has been the great puzzle for the scholars. The authentic tradition of understanding the Vedic samhitas can be discerned to have been available at least as far back as the *Nirukta* of *Yāska*.. The *Yāska* holds a prominent position among the commentators. He has given his commentary in *Nirukta*, he has used *Nighanṭu* for explanation of the words. The *Ṛgvedic* deities have been described in *the Sarvānukramaṇī* of *Kātyāyana,* It is an index to the *Ṛgedic mantras*; *Nītimanjarī* another commentary provides an idea about the social customs and tendencies of *the Ṛgvedic* period.

The emphasis laid in *mimansa* text on the unbroken tradition of Vedic study, refers apparently only to the tradition of memorizing and reciting the Vedas. The language of the Vedas is a coded language. By the time of *Yaska* the Vedic hymns had become significantly unintelligible and a number of views have been formulated in relation to their interpretation. In the 5th century B.C. Paṇini carefully records the principles of Vedic grammar. In the 14th century *Sāyaṇācārya* attempted the renaissance of the Vedic tradition, he takes it for granted that Vedic hymns are to be understood strictly in the context of Vedic ritual. In the 19th century the publication of Maxmüller's translation with *Sāyaṇa*'s commentary on the Rig-Veda samhitas has open a new vista as a modern attempt to understand Vedas.

The resources of comparative philology, comparative mythology and religion and of comparative history have been employed by a host of scholars all over the world for more than a century to discover the true meaning of the Veda and its religion. But, the quest to understand the Vedic language

remains as it is due to the ambiguity of the Vedic hymns to allow a diversity of interpretation so as to trace their significance. Nevertheless, unresolved controversies continue to exist and most of the difficult Vedic hymns have been considered unintelligible, because scholars were unable to draw any conclusion from them. There is no doubt that our understanding of the Vedic language has made a considerable progress, but there is no consensus among the scholars. There must be an organized effort for interpretation and propagation of the Vedas in its true sense with the help of modern knowledge. It is a fact that without thorough knowledge of the creation, Vedic metaphors are hard to understand. With the development of the modern science and technology, we have touched the Vedic height up to some extent. Hence in the light of modern knowledge now it is possible to understand the Vedic hymns.

In the history, with the British rule in India the discovery of ancient India has taken its shape with Vedic literature in the background. It became the most consuming intellectual project to trace the history of ancient India. The Archaeologists, linguists, anthropologists, historians and philologists devoted their services to trace the background of uncivilized slave Indian culture with an aim to rule over India. The western scholars have considered the Vedas as religious scriptures and tried to trace history of the religious thoughts of the primitive society on the earth. They became most excited with the discovery of Sanskrit and its correlation with European languages. The linguists and comparative philology has further intensified the problem. It is all due to the misinterpretation of the Vedas in wrong direction. There is no

history or religion in the Vedas. On the contrary, they reveal the scientific truth of the creation for which the modern scientists are working in a systematic manner. They have no answers about many secrets of the creation. The unanswered problems can be solved with the help of Vedic knowledge and they can be tested scientifically.

The Vedic literature is in the form of metaphors and riddles, it indicates towards the phenomena of the nature and the natural reactions going on in the nature. With the knowledge of the modern science the indications can be understood. Hence for the interpretation of the indications one must know the Vedic terminology in its proper way, because Vedic terminology with myths of mythology is a product of long history of climatic conditions. The Vedic deities, they actually represent either the component of nature or natural phenomena. The anthropomorphic nature of the deities and their figurative description with personification is a way of expression of the thoughts about the natural phenomena. Although without reference and the knowledge of the related phenomena the metaphors are hard to understand, where words are only the coded indicators. As such with an aim to decode the Vedic metaphors a scientific terminology of the Vedic deities has been prepared to interpret the Vedic hymns and metaphors in a chronological order with depth of the Vedic knowledge. In the same manner the riddles can also be solved, where words are only coded indicators and the unexplainable metaphors explore their true meaning.

3. Discussion

The Vedic language is not a common language, it has some hidden meanings, and Vedic seers have drawn the attention of

the scholars towards this fact in their own way. The metaphors and the riddles are the thought provoking instruments only. It has been expressed that how the Gods repose the praise songs? He who knows not this, what will he do with praise-songs? A sage who knows this rightly is his father's father. It means the compilation of the Vedic hymns in the metaphors has an aim and purpose; one should search the hidden truth behind it. If one is able to grasp the real meaning, he will touch the height of the forefathers in knowledge.

Upon what syllable of holy praise-song as 'there their highest heaven the Gods repose them – who knows not this, what will he do with praise-song? But they who know it well sit here assembles Rig-Veda 1-164-39
They told me these were males though truly females: he who hath eyes sees this, the blind discerns not.
The son who is a sage hath comprehended: who knows this rightly is his father's father Rig-Veda 1-164-16

In the same fashion at another place, the mechanical chanting of the praise songs has been compared with the awakening of the frogs at the beginning of the rainy season. The seer compares the din of their croaking with the chants of priests, and the clamour of pupils at school repeating the words of their teacher. It has been considered as a satire on the *Brāhmans*, who do not know the purpose and meaning of the Vedic hymns. The pupil learn the lesson from their teacher and mechanically reproduce it, just like the year brings the rain in due course of time and fertilize the soil, in the same

fashion the *Adhvaryu* - sage will come forward to explore the hidden truth Rig-Veda 7-103

Resting in a silence for a year, As Brahmans practising a vow,
The frogs have lifted up their voice, Excited when parjanya comes,

When one repeats the utterance of the other,
Like those who learn the lesson of their teacher,
Then every limb of yours seems to be swelling,
As eloquent ye prate upon the waters,

These Brāhmaṇs with the mighty soma offering,
Sit round the large and brimming vessel talking,
So throng ye round the pool to hallow
This day of all the year that brings the rain-time.

These Brāhmans with their soma raise their voices,
Performing punctually their yearly worship;
And this Adhvaryus, sweating with their kettles,
These priests come forth to view, and none are hidden,

It has been interpreted as a satire upon the *Brāhmans*. But it is only to draw the attention of the pupils, that only the chanting of the praise songs is not sufficient, go into the depth of Vedic hymns,

The twelve month's god sent order they have guarded,

And never do these men neglect the season,
When in the year the rainy time commences,
Those who were heated kettles gain deliverance.

The analysis of the metaphors reveals the fact that Vedic science was much more advanced than our modern science and we can extract much more for the welfare of the society. Because if we interpret the Vedic hymns scientifically in the light of modern science up to the level where we stand at present, than in a similar sequence we will get the answer of the theories about which we are still in dark. For example at present we do not know the exact mechanism of origin of life on the earth and role of consciousness in the life, similarly we have no knowledge about the rebirth cycle, although we know about the role of DNA and biogeochemical cycles in the nature. It is worth to note that without having the clue of origin of life we can not satisfy the religious fundamentalism in the world. After tracing the origin of life on the earth, we can also trace the aim of life on the earth under the cycle of rebirth and death as indicated in the Vedic hymns.

With the scientific interpretation of the Vedic metaphors, the decipherment of the Indus Valley seals is possible. For which India and Indian culture were awaiting since long. It will give new dimension to the Indian culture in the world. It will also reveal the fact that once in the history Vedic culture flourished on the earth, without it such scientific work is not possible, it is also not possible that through meditation in the state of trance, such knowledge can be explored?

The major obstacle in the decipherment of the Harappa and Mohenjo-daro- seals is undecipherable Vedic language code.

The key of the Vedic language code is in the modern science and on the same line the Indus Valley seals can be deciphered. The Decipherment of the Indus Valley Vedic culture seals can throw a new light on the Indus Valley Vedic culture. The phonetic vibrations of the Vedic hymns in the background of the pictographic symbols explore the knowledge hidden in the symbols.

The Rig-Veda begins with invoking of Agni.

I invoke the Agni- (fundamental energy) who is the priest, Deva (fundamental particles), sacrificer, and reciter of the Sṛṣṭi yajña*, which is the treasure of jewels Rig-Veda1-1-1*

The sacrifice - *yajña*, metaphor for the creation sacrifice, and the fundamental energy has been invoked, who is the creator and source of every thing in the creation.

Photosynthesis - The transformation of electromagnetic energy in to the chemical energy is the most exiting discovery in the history of life on the earth, synonym to our modern knowledge. The whole process has been described in the wedding hymn Rig-Veda 10-85: under ''*wedding of Surya's daughter* Ā*ryaman*'' It has been indicated through a riddle Rig-Veda 1-164-7

Let him who truly knows (here) tell the set down track of this pleasant bird; the kine extract milk from his head; clothing themselves in a wrap, they drunk water with the foot Rig-Veda 1-164-7

The pleasant bird is sun, from where the kine extract milk from his head. It indicates about the visible solar rays (VIBGYOR), which are coming on the earth's surface from the head of the sun. These rays have been trapped by the

plants for the **photosynthesis**; they act as milk-food *(kṣīra)*) through nourishment for the living-beings. Hence the visible rays of the sun have been compared with the milk and plant as kine. The absorption of water by the green plants has been indicated through the drinking of water with the foot, the foot represents root system Rig-Veda 1-164-7

The photosynthesis is a process, during which the green plants synthesize glucose as food material from the atmospheric carbon di oxide and water in the presence of chlorophyll and light. During this process the transformation of the light energy in to the chemical energy is there, which is the source of life and food for the living organisms. Today it is also a fact that all the complex organic substances are the products of the glucose metabolism in side the cell. It is a unique event in the history of origin of life on the earth. It is the only source of the chemical energy and carbon skeleton of the living beings on the earth.

The process of the photosynthesis has been described through the metaphor of the marriage ceremony in the wedding hymns of the *Ṛgveda and Atharvaveda*.

The marriage is an important event in the life of a human-being. Through the marriage a young girl under go a transformation. She enters in to a new house as a wife with her husband so as to produce offspring's. In the same way transformation of the light energy in to the chemical energy through photosynthesis lead it to produce glucose and the products of the glucose are just like its offspring's. Through the ceremonial process and the wedding hymns of the marriage, the whole process of the photosynthesis has been described in a symbolic fashion metaphorically. It is synonym

to our modern knowledge. As we know today, through the achievements of the modern science in the field of Biophysics.

In the same manner in the Indian culture there is no code of conduct for the change of the religion or culture, but the European scholars have interpreted that the white fair Āryan *Indra* has defeated the black demons without nose and pushed them southward, the black people of south India known as *Dravidic* are the original in habitants of India converted by the Ā*ryans* in to the Vedic culture. In actual sense war and battle are symbolic metaphors to express the molecular reactions.

The *Indra* represents electricity and demons means obstacle, it has been indicated that black spots on the sun's surface are the obstacles in the luminosity of the sun, due to the charge of the *Indra*-electrostatic energy with the formation of electromagnetic energy the black spots have been destroyed. It has been expressed symbolically to indicate the sun spots. The existence of the sun spots on the sun's surface in *Rohita sūkta* of the Atharvaveda have been expressed by white sons of black mother symbolically, due to the solar flares coming out from the sun spots with the formation of electromagnetic energy.

The battle described between the *Ārya and the black demons-Dasyu* is a symbolic expression for the removal of the obstacle during the natural phenomena. The *Ārya* means well cultured- good system and the black demon represent the obstacle during the reaction.

In the same fashion the essence of the creation has been described as the four horned buffalo, where four horns are

symbolic expression for the four dimensional structure of the atom, where the three fundamental particles- electron, proton, neutron generates the magnetic energy, due to the spinning of the vibratory electrons around the nucleus. It is the base or essence of the creation. The essence has been termed as *Ghṛta*-clarified butter, it means the essence of the buffalo milk is ghee, in the same fashion the four dimensional structure of the Atom has the essence of the creation.

Further the structure of the DNA has been expressed through the buffalo, which has four horns four bases with two head- two strips and three legs represents triplet code of three bases known as genetic code Rig-Veda 4-58

How the creation came in to the existence? The role of DNA in various shapes at cellular level in the living-beings has been expressed through the pictographs and figures on the tablets.

In the funeral hymns it has been said that *Yama's* two brindled dogs with four eyes watch the path of man. *The Yama* represents chromosome with the information of life and death. It consist of DNA, the two strips of the DNA have been expressed symbolically through two dogs and the four eyes represents four bases of the DNA, which record the deeds of a person concern in its language code of base sequence. It has been expressed by saying that *Yama's* two brindled dogs with four eyes watch the path of man, which will have repercussions in the future birth. It means it is an indication towards the fact that DNA and its language code is immortal Rig-Veda 10-10

Symbolic Anthropomorphic Conversation

The knowledge in the metaphors has been expressed in an

anthropomorphic manner through dialogue between the two or more components involved in the reaction or phenomena at molecular level. At some places the natural factor him self reveal the truth about the fact in an anthropomorphic manner. For example, it has been expressed that the creation is sustained and held up by fundamental energy.

The answer has been given that the creation is rested upon un-born's navel, wherein abide all things existing. He is in the middle of the creation just like a great monster- *Yakṣa*. All are set in him like the branches of a tree. The same truth has been revealed symbolically through the mouth of fundamental energy in an anthropomorphic manner- w*ith the mind's eye I (Spirit) think that I (Fundamental energy) behold them who first performed this sacrificial worship.6*

It is possible due to the fact that the human body represents a microcosm in side a macrocosm and the body is complete in it self.

Similarly the presence of ozone layer in the atmosphere has been revealed by the life it self in an anthropomorphic manner-

Dyaus is my Father my begetter: kinship is here. This great earth is my kin and Mother. Between the wide-spread world-halves is the birth-place: the Father laid the Daughter's germ within it Rig-Veda 1-164-33

The life on the earth is a puzzle. The truth has been explained through the mouth of the life in an anthropomorphic manner symbolically.'' *The sun in the sky is my father, who is the cause of life, earth is my mother, who nourish me and my birth place is in between the world halves*, (where ozone layer absorbs the toxic ultra violet rays).''It

means the life has its origin after the formation of the Ozone layer in the atmosphere.

In the *Ṛbhu sūkta* the facts about origin of life Rig-Veda 1-20, and organic evolution has been revealed in an anthropomorphic manner by addressing the *Ṛbhus*, and through conversation between different *Ṛbhus* symbolically Rig-Veda 1- 161

The famous dialogue between *Pūrurva and Urvashi* is a symbolic conversation between the consciousness and the physical cell body. Which throw light on the origin of the first cell and evolution of the life on the earth Rig-Veda 10-95

The Wedding of *Sūryā's* Daughter Rig-Veda 10-85, the journey of the solar rays from the sun to the earth for the photosynthesis has been expressed. In the beginning of the hymn, the importance of the Soma ṣ magnetic energy has been expressed.

The dialogue between *Yama-Yami* (the twin) is a dialogue between the two similar chromosomes, which is a emphasis on the crossing over between two different chromosomes for the healthy species and evolution Rig-Veda 10-10

The dialogue between *Indra-Marut and Āgastyā Ṛg.*1-165, symbolically it reveals the atmospheric reaction for rainfall.

The dialogue between *Indra- and ĀgastyāRig-Veda*1-70 symbolically the conversation reveals the importance of electromagnetic energy in the atmospheric reactions.

The dialogue between *Āgastyā and Lopamudrā Rig-Veda* 1-

79, it expresses the role of passion in life.

The dialogue between *Viśwamitra and rivers- Vipat and sutudrī Rig-Veda* 3-33, it expresses the construction of Dams for irrigation on the rivers.

The dialogue between *Indra - Indraṇi and Vṛṣakapi*, it reveals the importance of chemical energy in the life of human beings. The *Indraṇi* represent the chemical energy, when the living- body in active with ageing and metabolism seized. It means the body is unable to accept the chemical energy of food, accordingly body became dead, just like dead wood. The Vṛṣ*akapi* represents living-being and Indra represents electricity in the body, the function of the body depends on the generation of electromagnetic energy in the body with metabolic reactions, hence it has been said that Indra is supreme Rig-Veda 10-86

Akṣa sūkta Rig-Veda 10-34, it reveals the human psychology in life and importance of ethics in life with fate of a gambler.

The dialogue between *Paṇis and Sarama Rig-Veda.*10-108, the conversation is symbolic, which reveal the importance of solar wind - *Sarama*, She is the messenger of *Indra* and mother of ***Tvaṣṭā,*** the cow is metaphor for the food material in the living beings, which is synthesized by the ***Tvaṣṭā*** *-DNA,* the *Paṇis* symbolically represent the obstacle in the formation of ions of the bases of the DNA.

Bhikśu ***sūkta (Āngirasa*** *speaker) Rig-Veda.*10-117, it reveals importance of generosity and fate of miser in social life.

4. Result and conclusion

The result shows that the Vedic language is a symbolic coded language, where the words are only indicator of the phenomena. The Vedic literature is in the form of metaphors and riddles.

The symbolism has been used to express the knowledge with metaphors. The Vedic language in its true sense is not a common language; the Sanskrit is only a script to express the words as symbols. The chanting of the Vedic praise songs is a scientific way to preserve the Vedic text.

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generation of charged particles is the first step. Accordingly the solar system, from nebula came into the existence. The earth became the centre for the origin of life. The formation of the atmospheric layers, generation of ions in the ionosphere and formation of ozone layer in the atmosphere are the essential factor for the origin of life.

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3. Origin and evolution of the creation

The quest of Creation

Figure 3

Who is the supporter, creator? Who has seen him, when he first came into being?

The earth is a planet of the solar system. The earth is peculiar in the sense that life is present on the earth. The modern science has revealed the fact that our solar system came in to the existence from the solar nebula. The life on the earth is a natural process of evolution, but hard to understand with diversity and complexity in the nature, under the cosmic principles. In the history of civilization on the earth, the intellectuals and thinkers have tried to reveal the secret in their own way, but the quest to know the real meaning of life on the earth remain untouched. The similar questions have been raised in the Vedas also, and their answers have been given in a similar fashion metaphorically. We have not

touched that height of knowledge, hence the simple answers looks just like myths.

In the past few hundred years the development of modern science has tried to explore the mystery of life on the earth in a systematic manner through experiments and their conclusive results.

It seems that evolution of the civilization and its destruction with time is a natural process on the earth.

Now we know that the creation is a system, the great scientist Einstein has enlightened the world that the creation is working, under the laws of thermo dynamics.

In Einstein's equation $E = mc^2$ it means energy and mass can be converted in to each other, where E =Energy, m=Mass and c =Velocity of light.

Life has originated on the earth through a chemical synthetic process of evolution. The Ozone layer protects the life on the earth.

The light energy is converted in to chemical energy through photosynthesis by the green plants, which is the source of carbon skeleton of the living-beings.

The DNA with four bases is main genetic material, which is universally present in the living-beings.

The system is working under the bio-geo-chemical cycles in nature through oxidation and reduction reactions.

The time on the earth is related with the rotation of the sun at its axis.

All these conclusions of modern science have been discussed in the Vedas also.

A teacher and a subject expert professor can understand

the importance of metaphors and riddles in day to day life to explain the knowledge in a simple way, so that the listener can grasp the knowledge in it. In the same fashion the Vedic texts move forward with their contemporary knowledge in the background. Accordingly any subject expert can able to grasp and touch the Vedic height of the knowledge. The interpretation of Vedic metaphor has revealed all the modern scientific theories and cosmic principles.

Who is the supporter, creator? Who has seen him, when he first came in to being?

Who hath beheld him as he sprang to being, seen how the boneless One supports the bony?

Where is the blood of earth, the life, the spirit? Who may approach the man who knows, to ask it?Ṛg.1-164-4

The questions have been raised regarding the creation system that how it is sustained? Who has seen the process of creation? How the boneless one supports the bony? Where is the blood of earth, the life, the spirit?

This is the human quest prevailing on the earth with dawn of civilization. The answer has been given that the creation is rested upon un-born's navel, wherein abide all things existing. He is in the middle of the creation just like a great monster-*Yakṣa*. All are set in him like the branches of a tree.

It is an indication towards the fundamental primeval energy. The same has been invoked in first hymn of Ṛg. 1-1-1

I invoke the Agni- (fundamental energy) who is the priest, Deva (fundamental particles), sacrificer, and reciter of the Sṛṣṭi, Yajña, which is the treasure of jewels Ṛg.1-1-1

The fundamental charged particles

Gāyatrī hath, they say, three bands for kindling: hence it excels in majesty and vigour. A. 9-10-3

It has been explained that the three charged particles, electron, proton and neutron are the source of atom and due to it they excels in majesty and vigour.

The electrostatic energy has been generated after magnetic energy, it has been expressed metaphorically.

Of her the Indra-electricity was young *vatsa* (Son) and *Gāyatrī* the halter, cloud the udder (milk) A. 8.10.5

The role of magnetic energy in the nature has been explained in an anthropomorphic manner in the pre-cosmic condition. That in the beginning after the magnetic energy, electric energy has been generated first just like a young son and there after the charged particles have their origin. They have the potentiality to feed the creation just like the milk feed an infant.

Energy transformation

It has been indicated that the creation came in to the existence through energy transformation and the fundamental energy remains constant in all conditions.

The full from the full he bends up (ud-ac); the full is poured with the full; also that may we know today, whence that is poured out Ath.10-8-29.

This beautiful one (F) (is) un ageing, an immortal in the house of a mortal; for whom she (was) made, he lies; he who made (her) grew old Ath.10-8-26

The creation has been evolved from the fundamental energy under space, time and the environmental conditions. The fundamental energy is unborn, un-ageing, as an immortal it resides in the house of mortals. It has been expressed that

the synthesised components of the nature like atom and cells are complete in them selves and as a mortal they under go deterioration with ageing. In the atom and the cell the fundamental energy resides as immortal. It has been indicated that with the reproductive capacity of the cells, the life energy became young through cell division and the old cells under go ageing.

The role of the fundamental energy and synthesis of the natural components in the creation has been explained. It has been indicated that all the natural components have been synthesized from the fundamental energy but the fundamental energy remain constant in all condition. The natural components are complete in them selves.

The electromagnetic energy

It has been expressed metaphorically that electromagnetic energy is present every where.

Both their father are also their son; both the chief are also the meanest (Kaniṣṭha) of them; the one god, who has entered in to the mind, born the first, and he within the womb. Ath. 10-8-28

It has been expressed that the fundamental life energy-consciousness has generated first in the atoms and in the womb. It has been termed as first born, than the fundamental energy proliferate along with the electrostatic energy of the nucleus as electromagnetic bond energy. They together have been termed as both the father and their son. The electromagnetic energy is present in the universe and at the micro level in the atom and the cell. Hence it has been termed as chief as well as minute (*kaniṣṭha)*

The sun is the soul and eye of the creation, its importance

in the solar system has been expressed symbolically.

Of this pleasant (vama) hoary invoker- of him the brother is the midmost (aśna); his third brother is Ghee backed (Ghṛta-pṛṣṭha); there I saw the seven sons of chief of the world Rg.1-164-1

The first riddle gives the idea about creation that the supreme fundamental energy, which has been invoked in the creation sacrifice, guarded by him (sun), his middle brother *is Asnaha-* air and the third brother *is Ghṛta pṛṣṭha-* organic matter. Here I have seen seven sons of the *Viśvapatim-*The chief of the world. Rg.1-164-1

It has been indicated that guarded by the supreme is the sun in the heaven, his brother in the middle is air and his third brother is on the earth *Ghṛta pṛṣṭha* the seven sons are seven rays of the sun, who feed the creation on the earth through photosynthesis., Accordingly it has been indicated that sun is the main source of energy on the earth, the middle atmosphere is the second centre, who feed the creation through ionosphere processes, his third brother *Ghṛta pṛṣṭha*, who feed the creation on the earth through the organic matter synthesized through photosynthesis, the whole play on the earth is due to the conversion of light energy in to the chemical energy through photosynthesis, hence the seven rays have been termed as seven sons of the *Viśvapatim-*the lord of the world. In this way the Vedic seers have drawn the attention towards the three main centre of the creation, sky (sun), air-atmosphere and plants on the earth.

Seven harness (yuj) a one wheeled chariot; one horse, having seven names, draw (vah) it; of three naves (is) the wheel un-wasting, un-assailed where on stand all these existence Ṛg. 1-

164-2

The seven harness of one wheeled chariot are seven planets of the solar system, the solar system has been termed as one wheeled chariot. One horse having seven names is sun, which has seven visible rays and is responsible for the working of the solar system. The three naves are the sun in the sky, who feed the creation through its nuclear reactions at its surface. The second nave of the creation is the middle atmosphere, where, magnetosphere processes feed the creation through ionisation. Its third nave is on the earth, where plants nourish the living-beings at its surface through the photosynthesis in the nature. On these three naves (centres) the creation has its existence these three centres are working without rest.

The seven they stand on these chariot- seven horses draw it, seven wheeled; seven sister utter songs of praise together, in whom the names of the seven cows are treasured Ṛg.1-164-3

The solar system has been termed as a chariot, where seven planets of the solar system drive the solar system through their movement around the sun as horse, the planets are rotating at their axis, due to this they have magnetic field and the magnetosphere around them, which is responsible for the movement of the solar system, hence they have been termed as seven wheels of the chariot. The seven sisters are seven visible rays, who feed the living beings like a cow on the earth, through the photo-synthesis, due to this the world of living-beings has came in to the existence through evolution. It has been indicated that in the living beings the seven rays have been treasured through food chain, they interact with each other.

The source of Cosmic World

FORTH from the ocean sprang the wave of sweetness: together with, the stalk it turned to Amṛta.

That which is holy oil's mysterious title: but the Gods' tongue is truly Amṛta's centre Ṛg.4-58-1

It has been expressed that from the ocean of universe the solar winds are the wave of sweetness. It has the stalk of fundamental charged particles. They turned in to *Amṛt*a for the creation with formation of the atom.

In the same fashion the essence of the creation has been described as the four horned buffalo, where four horns are symbolic expression for the three fundamental particles and generation of energy in the atom.

The essence has been termed as *Ghṛta*-clarified butter, it means the essence of the buffalo milk is Ghee. Similarly the four dimensional structure of the atom has the essence of the creation.

In the atom due to the spinning of the electrons around the nucleus the magnetic energy generates. The magnetic energy in association with the electrostatic energy of the nucleus produces electromagnetic bond energy. It has been expressed as the centre of *Amṛta* for the creation. The nucleus of the atom around which electrons move in the orbits and the magnetic energy generates, the nucleus has been termed as tongue.

The world of living-beings

Further the structure of the DNA De oxy ribose Nucleic Acid has been indicated through the four horned buffalo, which has four horns four bases with two head- two strips and three legs

represents triplet code of three bases known as genetic code, and seven hands indicate seven bonds (two double bond and a triple bond) in between triplet nucleotide pair Ṛg.4-58.

Universal nature of DNA

The genetic material DNA is present universally in all the living beings. It has been expressed as shaper of all the creatures. It has all the information of life. The universal nature of DNA has been expressed in this manner.

Tvaṣṭā the lord hath made all forms and all the cattle of the field:

Cause them to multiply for us Ṛg.1-188-9

The DNA has been termed as *Tvaṣṭā*, who is shaper of all creatures with multiplication, hence it has been termed as omni form (*Viśvarupa*), it means the DNA is present in all the living beings.

For Tvaṣṭā, he who knows each sacred song, brought thee to life, pre eminent o'er all the things that are.

It has been expressed that Tvaṣṭā – DNA is a supreme genetic material, which the source of life and it bears the information of life and death.

Origin of Life

Life has originated on the earth through a chemical synthetic process of evolution, and the Ozone layer protects the life on the earth.

Photosynthesis The light energy is converted in to chemical energy through photosynthesis by the green plants, which is the source of carbon skeleton of the living-beings.

Let him who truly knows (here) tell the set down track of this pleasant bird; the kine extract milk from his head; clothing

themselves in a wrap, they drunk water with the foot Ṛg. *1-164-7*

The pleasant bird is sun, from where the kine extract milk from his head. It indicates about the visible solar rays (VIBGYOR), which are coming on the earth's surface from the head of the sun. These rays have been trapped by the plants for the **photosynthesis**; they act as milk-food *(kṣīra*) through nourishment for the living-beings. Hence the visible rays of the sun have been compared with the milk and plant as kine. The absorption of water by the green plants has been indicated through the drinking of water with the foot, the foot represents root system Ṛg.1-164-7

Bio-geo-chemical cycle

The system is working under the bio-geo-chemical cycles in nature through oxidation and reduction reactions.

Gods sacrificing sacrificed the victim: these were the earliest ordinances. The mighty ones attained height of heaven, there where the Sādhyas, Gods of old, are dwelling Ṛg. 10-90-16

The *Yajña*-sacrifice means action and interactions, here it has been said that from actions and interactions again actions and interactions get generated, where according to the cosmic law-*Dharma*, *Deva* - fundamental particles are the first, with their activity they get reached to the height of matter and the fundamental particles- *Dev*a. It means the fundamental particles are the first in the series of actions and interactions. Through their activity they are converted into the matter and again reach to their original old state of *Deva* - fundamental particle through reversible reaction. It is an indication towards the natural cycles, through which the natural components have been synthesized and disintegrate in the reversible direction.

The oxidation and reduction reactions have been termed as two mother of the creation.

Two Mother of the Creation-

Oxidation and Reduction have been described metaphorically as the two mother of the creation, where one is related with the synthesis and the other is related with the disintegration, they move in succession one after the other without end. They maintain the balance in the system.

A certain pair of maidens, of diverse form, weaves, betaking them-selves to it, the six-pegged web; the one draws forth the threads tantu, the other sets [them]; they wrest not off (apa-vṛj), they go not to an end Atharvaveda 10-7-42

These sons of yours (Ṛbhus) well skilled in work of wondrous power brought forth to life the two great mothers first of all. To keep the truth of all that stands and all that moves, ye guard the station of your sons who knows know guile Ṛg. 1-CLIX-3

It has been indicated that during the evolution of life on the earth, the *Ṛbhu* (Cell) has acquired life through their skill of work. "*They brought forth to life the two great mothers first of all''* it means they have developed two reactions oxidation and reduction, they acts as two mother for the functions of the nature. They are the symbol of truth, it means through them the nature is working as a system. Hence they have been termed as two mothers, who regulates and feed the system through their by products

The time on the earth is related with the rotation of the sun at its axis.

. Time-Kāla - The wheel of order

Twelve are the fellies, and the wheel single; three are the naves. What man hath understood it?

Therein are set together spokes three hundred and sixty, which in nowise can be loosened Ṛg. 1-164-48

The importance of the Time-*Kāla* has been explained through the *Sāṁvatsara Kāla*- year, it has twelve months with three hundred sixty days. It is related with the rotation of the sun at its axis with three centres - Sky, atmosphere and earth This *Kāla*- time is rolling round the heaven. It is the wheel of order.

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4. Vedic Cell Biology

Introduction

Matthias Schleiden and Theodor Schwann have proved first time that animals and plants are made up of cells. All the living organisms are made up of cells, at cellular level, they exhibit the same functions. It is the basis of our modern big biological discoveries.

In the Vedic terminology the cell has been termed as *Ṛbhu* and the different stages of the cell have been termed as *Ṛbhu, Ṛbhukshan, Vibhvan and Vāja.*

The Nucleus has been termed as *Bṛhaspati*, the DNA has been termed as *Tvaṣṭā and Vivasvat*. The cell division has been expressed as renewal of parents.

The cell has been termed as *Ṛbhu*, literary it means Ṛ to move and bhý- to be, they follow each other, and in succession they proceeds towards evolution. In the early primitive condition the consciousness-*chetna* has appeared with the movements of the charged particles in side the closed system of the coaservates. Accordingly with space, time and environmental conditions a prokaryotic cell came in to the existence, with inherent quality of energy transformation, growth and multiplication with evolution. The development of the autotrophic cell with photosynthesis and genetic material has given the ways for the organic evolution on the earth.

The Prokaryotic Cell- *Ṛbhu*

1. For the celestial Race this song of praise which gives wealth lavishly Ṛg.1-20-1

The celestial race-cell, the *Ṛbhu-cell* has been praised as the divine class or race of the *Ṛbhus*. Once the *Ṛbhu-cell* has synthesized, it has maintained its continuity through cell division.

The three sons of *Sudhanvan*-developing coaservates are said to have been descendant of *Āngirasa* -viscous sap. They were named severally *Ṛbhu*-eldest, mature Cell- *Vibhvan-vigorous*, and *Vāja* is youngest. They have been collectively called as *Ṛbhus* from the name of *Ṛbhu.*

Due to their importance for the living-beings, they have been termed as celestial race as source of organic matter without check.

The appearance of Life energy

2. They who for Indra*, with their mind formed horses harnessed by a word, Attained by works to sacrifice.*

How the first cell has been synthesized? It has been expressed by the formation of charged particles in the coaservate drops as closed primitive system.

The cell has been termed as *Ṛbhu*, literary it means Ṛ to move and bhu- to be, they follow each

other and in succession they proceeds towards evolution.

The formation of the charged particles in a hydrophilic colloidal system has been expressed by **Horses harnessed**. Where the *Indra* – electrical charge is the first, who has appeared with its +ive and -vie charges. With the generation of vibrating sound, the charged particles became active like horses harnessed, and acquire the status for work in the sacrifice. It has generated the series of actions and interactions as a part of creation sacrifice.

Accordingly with movements of the charged particles and actions and inter actions of vibrating sound in a closed system a primary cell body has taken its shape in early primitive condition. It is the primary appearance of the life energy.

3. They for the two Nāsatyas wrought a light rolling car moving every way: They formed a nectar yielding cow.

Oxidation and reduction-The coaservative drops in the primitive condition has given the place for charged particles. The charged particles were moving in all directions, just like rolling car. With time the oxidation and reduction reaction have developed. It has been expressed by two *Nāsatyas*. These reactions have given the feedback. Accordingly, they have developed a nectar yielding cow for the nourishment (the proto-chlorophyll with photosynthesis).The cow is metaphor for the nourishment. Accordingly, the developing *sudhanvan* have developed the internal energy source.

Accordingly developing coaservate has been named as *sudhanvan* - well developed system for survival.

(The two *Nāsatyas* is a name of an *Aśvins* - wonder workers and other is *Dasra*-wonder worker as destroyer, they have been considered as the horse of the *Indra and Aśvins*-nucleotide pairs of the DNA, it means the activity of the DNA is enhanced by oxidation and reduction reactions.)

4. The Ṛbhus with effectual prayers, honest, with constant labour made, their Sire and Mother Young again.

Multiplication- the renewal of the cells by multiplication has been expressed by saying that they made their parents young again.

To acquire the stage of multiplication, a considerable time period is necessary. It has been expressed by *effectual prayers, honest and constant labour*. Accordingly the process of synthesis with multiplication has been started with feed back of oxidation and reduction reactions,

The multiplication has been expressed through the metaphor that they made *their Sire and Mother Young again.*

Ageing

5. Together came your gladdening drops with Indra by the Maruts girt, with the Ādityas, with the Kings.

Ageing- The appearance of gladdening drop reveals the fact that together with *Indra,* water and time the coaservate under go ageing.

The Indra represents charged reactions, *Maruts* represents water, and the *Ādityas* (twelve months) represents time.

Genetic material

6. the sacrifice ladle, wrought newly by the God Tvaṣṭā's hand (DNA) Four ladles have ye made thereof.

Cell division-The sacrificial ladles (developing cell) was made new by *Tvaṣṭā*- with four ladle.

The synthesis of the genetic material with time has been expressed by *Tvaṣṭā* -DNA

Tvaṣṭā- is a term for the genetic material, it means first genetic material has been synthesized in side the cell, it has given the capacity for cell division during the primitive anaerobic conditions and in turn the cell has been divided into four.

7. Vouchsafe us wealth, to him who pours thrice seven libations, ye to each. Give wealth, pleased with our eulogies.

The nature-Accordingly with time the nature became enriched with organic matter and gases. It has given wealth of organic matter and gases to the nature. They have provided thrice seven fuels, the five gross elements, twelve *Āditya* (twelve months), and three atmospheric layers.

It has been expressed in an anthropomorphic manner symbolically, as if nature is addressing to the *Ṛbhus*.

It has been expressed symbolically through Ș*Give wealth, pleased with our eulogies¿* that with the synthesis of the cell, the cell came under the control of natural forces, and the cells became the source of organic matter and gases in the nature.

8. As ministering Priests they held, by pious acts they won themselves, A share in sacrifice with Gods.

The self acquired status in the nature. As soon as the first cell has been synthesized in the nature, it has acquired the status, just like priest, and along with the natural forces, it was having share in the creation sacrifice.

The infinite nature- it has been expressed that with the formation of the prokaryotic cell in the nature, the *Ṛbhus*-cells became the source of nutrients in the nature along with the natural forces. Accordingly the function of *Ṛbhus* is just like priest in the creation sacrifice, they initiate the process of evolution of infinite nature with exchange of gases in the atmosphere and addition of organic matter. It is their share in the creation sacrifice, hence the *Ṛbhus* have been mentioned just like as ministering priest.

In this fashion the process of evolution has been started with the formation of a prokaryotic cell.

e. Autotrophic Ṛbhu- cell

The most important event for life on the earth is generation of life energy and conversion of light energy into the chemical energy by chlorophyll. The generation of life energy and synthesis of chlorophyll in the early primitive condition has been expressed by addressing to the eukaryotic *Ṛbhu* in an anthropomorphic manner in a symbolic fashion.

8. Out of skin, O *Ṛbhu*s, *once ye formed a cow, and brought the mother close unto her calf again. Sons of* Sudhanvan*, Heroes, with surpassing skill ye made your aged parents youthful as before Rg. 1-CX-1*

Chlorophyll- The synthesis of chlorophyll from the outer wall of the cell has been indicated by saying ''out of skin *they formed a cow, and brought the mother close unto her calf again,*'' the cow is a symbol of nourishment, which feed the child with her milk just like a mother. The Rbhu cell under go ageing with consumption of food, to check this, the *Ṛbhu* has synthesized the chlorophyll pigments from outer wall of the cell at their own; in turn the cell became young with supply of food material through photosynthesis. In this way the young cells get the nourishment, and the source of nourishment became close to them, just like a mother came close to her calf again. It means with the development of autotrophic nature and cell division, the ageing cells became young. It has been indicated by ''*Ṛbhus*, *ye made your aged parents youthful as before.''* the daughter cells have been termed as young parents.

f. Development of Eukaryotic cell- *Ṛbhu-*

Indra hath yoked his Bays, the Aśvin's car is horsed; Bṛhaspati hath brought the Cow of every hue. Ye went as Ṛbhu, Vibhvan, Vaja to the Gods Rg. 1-161-6

The function of eukaryotic cell has been expressed. With the formation of electromagnetic bond energy, the cell body - the car of *Aświn's* became active, just like horse, where the *Aświn* - nucleotide pairs synthesize the *Bṛhaspati* - nucleus of the cell, the nucleus regulates the cell division, it is responsible for the biodiversity in nature, it has been expressed by the *'cow of every hue'* the cow is metaphor for the nourishment, because the living-beings acts as food for each other. Accordingly the cells have acquired different stages as *Ṛbhu*, *Vibhvan*, and *Vāja* during their life cycle. These three represents the three stages of a cell as young, vigorous and old, their functions are under the natural factors.

7. Ye by your wisdom brought a cow from out a hide; unto that ancient Pair ye gave again their youth. Out of a horse, Sudhanvan's Sons, ye formed a horse: a chariot ye equipped and went unto the Gods Rg. 1-161-7

Horse out of a horse - A well developed cell divide vigorously, it has been termed as horse metaphorically. With their efficient working in the nature for a long period, they have synthesized the chlorophyll from the outer wall with photosynthetic nourishment, the cell became young again. It has been expressed by saying that the descendents of coaservate - *Ṛbhu* have formed a horse out of horse, and the cell body became well equipped to interact in the nature.

The synthesis of proto-chlorophyll has acted as a horsepower for the evolution, accordingly it has been said *''Ye (Ṛbhu) brought a horse out of a horse.''* It means the DNA - genetic material, and chlorophyll acts like a horsepower for the *Ṛbhus*-cells, and the cell became resistant to survive in the nature through the cell division.

Life energy– The consciousness - the life energy has been described as *Chetna*-consciousness, which appears at its own due to the movement of the charged particles in the initial stage and streaming movements of the protoplasm in the cell and it disappears with the ageing of the cells. The consciousness is a form of energy and it is the base of life, it can be defined as life principle related with the movement. With streaming movements of the protoplasm life energy is generated, just like due to the spinning vibrations of electrons around the nucleus, magnetic energy generates in the atom. It is supported by the metabolic reactions and the source of consciousness for the DNA, which regulate the life.

The Life energy-

The holy work I wrought before is wrought again: my sweetest hymn is sung to celebrate your praise. Here, O ye

Ṛbhus, is this sea for all the Gods: sate you with Soma offered with the hallowing word. Ṛg. *1-CX-1*

The *Ṛbhus* (cells) have been praised for their work and it has been said ''O ye *Ṛbhus*, *is this sea for all the Gods'',* it means for the natural forces the space in the cell is just like a vast ocean for their activity, which acts with the generation of magnetic life energy. The *Soma* represents magnetic life principle energy, which is generated within the cell due to the streaming of protoplasm in the cell. The same is the symbol of life in a cell, where natural metabolic reactions sate the cell with their activities.

The appearance of life energy, sate the cell on an easy path; it has been expressed by the metaphor of *Soma offered with hallowing word.* Where the cell is just like a vast sea for the activities of the natural components, with their functions, they gratify the cell with generation of life energy with metabolism. The sound of vibration has been expressed by the hallowing word and generation of life energy has been expressed by the *Soma* offered.

When seeking your enjoyment on ward from a far, ye came un to the home of of liberal savitā.

Through the savita *the beginning of metabolic reactions has been indicated* Ṛg. 1-110- 2

Savitr gave you immortality, because ye came proclaiming him whom naught can hide. And this drinking- chalice of the Asura, which till that time was one ye made to be fourfold Ṛg. *1-110- 3*

Proclaiming him whom naught can hide.- It has been indicated that with generation of life energy, the *Ṛbhus* came in contact of sap-protoplasm and *savitā*-stimulator-enzymes; with this the generation of life energy with streaming of protoplasm and the metabolic reactions have given them immortality through cell division in a fourfold manner. It

means once the generation of life energy has started in the cell body, it has maintained its continuity through cell division from generation to generation in a fourfold manner, it has been expressed in the words of *Ṛbhu- ye came proclaiming him whom naught can hide Ṛg.* 1-110- 3

The life is the union of DNA, and the cosmic energy as the source of consciousness, and metabolism activate it.

The life on the earth

The life has originated on the earth in water. The life is associated with three events in the life cycle, the birth, life and death under cosmic principles. Now it is a scientific fact that life on the earth is very much supported by the ozone layer in the atmosphere, for the life water is essential and triplet code of DNA with triple bond of hydrogen regulates the life cycle with hereditary characters.

The Covering arrangement of life energy

The first cell has been synthesized in the seawater and has been termed as *Ṛbhu.* It has been expressed symbolically by asking a question in an anthropomorphic manner to *Ṛbhu-cell.*

What time, first springing in to life, thou neighed, proceeding from the sea or upper waters,

Limbs of the deer hadst thou, and eagle pinions, O steed, thy birth is high and must be lauded. Rg. 1-163-1

It has been asked that at what time the *Ṛbhu* has sprang into life, the answer has been given that life has originated first in sea or in upper water. The life energy is having a speed like an eagle or deer. The birth of life is very high, it must be lauded.

This steed which, Yama gave hath Trita harnessed, and him, the first of all, hath Indra mounted.

His bridle the Gandharva grasped. O Vasus, from out the Sun ye fashioned forth the Courser Ṛg. 1-163-2

The cell body has been termed as steed metaphorically, it has been synthesized by the chromosome, it has three stages in life, the functions of the cell body depends on the life energy, it has generated first in the coaservate, due to the movements of the charged particles, hence it has been said that it has mounted first by *Indra*- the electrical charges. The life energy has been grasped by the *Gandharva*-the protoplasm as bridle, to carry it on the path of evolution. The bridle is metaphor for the life energy. The cell body carries the life energy from generation to generation with cell division, just like courser.

The source of the a-biotic substances on the earth is Sun, they have constitute the cell, it has been expressed by '*O Vasus, from out the Sun ye fashioned forth the Courser'*

Yama art thou, O horse; thou art Āditya; Trita art thou by secret operation.

Thou art divided thoroughly from Soma. They say thou hast three bonds in heaven that hold thee Ṛg. 1-163-3

The chromosome synthesizes the cell body, under the temperature pressure gradient of twelve months. It has three stages in life. Due to the vigorous nature of the *Ṛbhu* in the nature, the *Ṛbhu* has been called as steed metaphorically.
Hence it has been said that thou art *Yama*, thou art *Āditya, Trita* art thou by secret operation.

The living cell divide from the pre existing cells only, it has been expressed by *Thou art divided thoroughly from Soma*

The existence of the cell body on the earth depends on the ozone layer. It absorbs the ultra violet rays and protects the

life on the earth. It has been expressed by saying '*thou hast three bonds in heaven, which hold thee'* the ozone has three oxygen atom O3

Three bonds, they say, thou hast in heaven that bind thee, three in the waters, three within the ocean.

To me thou seems Varuṇa, O Courser there where they say is thy sublimate birth place Rg. 1-163-4

The existence of the living cell body in the nature depends on the existence of ozone layer in the atmosphere, water and the functions of DNA nucleotide pairs, under the control of hydrogen triple bond. It has been expressed by addressing *Ṛbhu-cell* that you have three bonds in heaven O3. Three in water H2O, and three in ocean of life H3 - the hydrogen bond between the nucleotide pairs of DNA.

The aggregation of the inorganic compounds, water, DNA, and the ozone layer are the cause of birth of the cell body with life. It has been expressed by addressing to *Ṛbhu*-cell '*To me thou seems Varuṇa, O Courser there where they say is thy sublimate birth place.*

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5. Origin of life

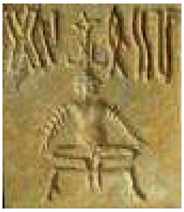


Figure 4

Origin of life - Indus Valley seals

It has been expressed that the life has originated on the earth with synthesis of cell. It has been expressed by a fish like structure the dot in the centre represent nucleus in the cell. The leaves on the head is symbol for the photosynthesis, the genetic recombination with crossing over have given the ways for evolution.

The horned hood expresses the four horned buffalo emitted Rig-Veda 4-58-1, 2, 3

The leaves on the head expresses the source of food on the earth is photosynthesis Rig-Veda 1-164-7

Figure ş 2 1

Figure 3 Mendel's laws of inheritance

Figure 5

It has been expressed that the human -beings have evolved from the single ancestor with genetic recombination under the laws of inheritance.

The leaves are symbol of food on the earth and the photosynthesis.

The kine extract milk from his head; clothing themselves in a wrap, they drunk water with the foot Rig-Veda 1-164-7

The seven figures at the base express the phenotypes and genotypes. It has been expressed that the creation came into the existence with formation of the atmospheric layers of the earth.

Guarded by covering-arrangements, defended by watchmen (?? barhata), O Soma, thou standest hearing the pressing-stones; no earthly one partakes of thee Atharvaveda 14-1-5

3 1 **Covering arrangements**

The covering arrangements around the earth has been expressed by the arch Atharvaveda 10-8-36

. 1-32-1, 2

, and the leaves on the arch symbolize the photosynthesis Rig-Veda *1-164-7*

Magnetosphere

The one who clothes himself in this earth is earth's magnetic field and one who encompassed the atmosphere is earth's magnetosphere, who protects the earth from the magnetic field of sun and other planets Atharvaveda 10-8-36

Ozone layer

That is not on the earth, nor in the sky, where by the plants breathe. 1-32-1

In the atmosphere is the station of them, as of those sitting wearied; the station of this that exists: 1-32-2

. They have given the way for photosynthesis as the source of food for the living-beings.

3 2 Defended by watchman

It has been expressed that the fundamental energy protects the creation, just like a watchman.

3 3 The cell body

The synthesis of the cell body with nucleus has been expressed.

3 4 The *Ram* with two long curling horns

It has been expressed that the DNA has spread in the world in restless motion.

11. a body formed for flight hast thou, O charger; swift as the wind in motion is thy spirit Ṛgveda 1-163-11

3 5 The infant on the stool

The development of infant in the womb has been expressed.

3 6 The seven figures

It has been expressed that the genetic recombination with phenotype and genotype has brought the biodiversity in nature.

Yama beyond, below Vivasvat beyond that do I see nothing whatever; into Yama has entered my sacrifice, Vivasvat stretched after the worlds (bhu). Atharvaveda 18-2-32

It has been expressed that the *Vivasvat* (DNA) and the chromosome (*yama)* is present universally in the living-beings.

3 7 The blocks

The development of communities and the territories have been expressed.

6. The Organic Evolution

Figure 6

The first life has originated in water. The life has evolved from a single cell with crossing over and genetic recombination. The beginning of the photosynthesis with recombination of the genetic material has opened the door for the organic evolution on the earth.

DNA replication & insertion of gene

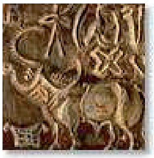
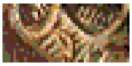


Figure 7  *DNA replication and insertion of gene* *genomic*

11. a body formed for flight hast thou, O charger; swift as the wind in motion is thy spirit.

Thy horns are spread abroad in all directions: they move with restless beat in wildernesses 1-163-11

Rbhu has a body formed for flight in nature. The Charger DNA is swift like wind, the motion is his spirit. Just like his horns, they spread in all directions with rest less beat.

10. One downward to the water drives the crippled cow, other trims the flesh brought on the carving board.

One carries off the refuse at the set of sun. How did the Parents aid their children in their task?

The Organic Evolution- The evolution proceeds forward in the nature under space, time and environmental conditions with the origin of life- consciousness.

The organic evolution on the earth is related with the ecological succession, with the development of the eu karyotic autotrophic cell. Where photosynthesis on one hand is responsible for the development of the carbon skeleton and DNA is responsible for the genetic recombination with multiplication and successive evolution. The consciousness has also shown its evolution simultaneously with species diversity and complexity in the nature with the modification of the physical environment.

Figure 8

Figure IV b - The antelope motif with two forward arching horns.

The incense burner is symbol of light - indicate sun as the source of light.

The two dark globular structure in front of mouth - it indicate that in the beginning, *Sudhanvan* - coaservates have been synthesized Ṛg. 1-110-2

. When seeking your enjoyment onward from afar, ye, certain of my kinsmen, wandered on your way,

Sons of Sudhanvan, after your long journeying, ye came unto the home of liberal Savitā Ṛg. 1-110-2

The two forward arching horns, it indicates the two strips of DNA.

The *Pipal leaf* - it indicate the synthesis of chlorophyll for photosynthesis.

By the side of leaf genomic chromosome has been depicted.

It has been expressed that the organic evolution proceeds with the synthesis of genetic material and chlorophyll in the coaservates.

The evolution proceeds forward under Ecological and Physiological Principles - The principles have been explained metaphorically in an anthropomorphic manner, as if nature is addressing to *Ṛbhu*

8. Drunk ye this water, were the words ye spake to them; or drink ye this, the rinsing of the Mūnja-grass. If ye approve not even this, Sudhanvan's Sons, then at the third libation gladden ye yourselves Ṛg. *1-161-8*

The importance of the water for life has been expressed by *''ye drink this water or ye drink water through rinsing of*

Mūnja grass' The animals drink water, and the plants absorbs water with roots. Otherwise the descendents of *Sudhanvan,* the developed cell body will under go ageing them selves, in the third phase of the development.

With the symbolic conversation between the *Ṛbhu*-cell, the importance of water, energy, environmental factors and lightening clouds have been expressed.

9. Most excellent are waters, thus said one of you; most excellent is Agni, *thus another said*

Another praised to many a one the lightening cloud. Then did ye shape the cups, speaking the words of truth Ṛg. 1-161-9

Looking to the functions of the *Ṛbhus*-cells in nature, according to one *Ṛbhu* said that water is essential. The second *Ṛbhu* said that *Agni*-energy is most important. The third one praised many factors and said that lightening clouds are important, than the *Ṛbhu* (cell) it self has revealed the truth through a riddle, about the basic principles, under which the ecosystem is working as a system.

10. One downward to the water drives the crippled cow, other trims the flesh brought on the carving board.

One carries off the refuse at the set of sun. How did the Parents aid their children in their task? Ṛg. 1-161-10

The *Ṛbhu* (cell) has expressed the truth about respiration, photosynthesis and the decomposition of the dead parts, through which the system operates in the nature.

Respiration - Oxidation Reaction

One downward to the water drives the crippled cow,

The cow is the metaphor for the nourishment, the carbon di oxide is the source of food as well as it is poison in the body, through respiration, it moves out of the body. The term

‘*crippled cow’* has been used for the unwanted CO2 (carbon di oxide in the cell, it drives away from the cell, just like water moves in the down ward direction.

Reduction Reaction

‘‘*Another trims the flesh brought on the carving board*.’’

It has been expressed that the food material in the cell is sate by the reduction reaction in the cell.

Decomposition ş Oxidation out of cell

‘‘*One carries off the refuse at the set of sun,’’*

It has been expressed that one reaction degrades the dead body after the end of life. The term ‘set of sun’ has been used for the end of life symbolically. The dead cell body under go decomposition with oxidation through microbes in the nature, in turn waste material is released from the surface.

These principles have given the way for the evolution of the living-beings. Hence degradation and decomposition of the waste material by the decomposers has been expressed.

These important ecological and physiological functions are going on in the nature, through which the nature is working as an ecosystem.

The source of organic matter

Looking towards the ecosystem a question has been asked ‘‘how did the parents aid their children in their task’’. The parents represent pre-existing living-beings.

11. on the high places ye have made the grass for man, and water in the valleys, by your skill, o Men, Ṛbhus, ye iterate not today that act of yours, you are sleeping in the house of him whom naught can hide Ṛg.1-161-11

The answer has been given by addressing the *Ṛbhu* (cell) that you have prepared plants for man and water in the valley with your functions in the nature. The functions of *Ṛbhu* (cell) are repeated continuously with the cell division, because the

capacity of cell division with life energy is inherent in them, which no body can check.

The Parents Heaven and Earth

12. as, compassing them round, ye glided through the worlds, where had the venerable Parents theie abode?

Ye laid a curse on him who raised his arm at you: to him who spake aloud to you ye spake again Ṛg. 1-161-12

It has been expressed that gradually the cells have spread in all the directions with symbolic expression that you have over spread in the world through cell division gradually. It has been asked that where are your venerable Parents and their abode?

Those, who act against the living cells, they laid a curse on him, and those who, honour them, they receive the reward.

The parents of *Ṛbhus*-cells are heaven and earth, accordingly the answer has been given in the succeeding verse that the *Maruts* move in the heaven and the earth. The *Maruts*-rain clouds is an indication towards the source of water vapour's energy, it has been expressed by *Agni*-energy, and from the middle atmosphere wind approaches the earth, the *Varuṇa*-gravitational force is the cause of accumulation of water in the sea. It has been expressed by *Varuṇa in the sea's gathered waters.* As such the heaven and earth are the guardians of the living-beings.

Dormancy period and life cycle

When ye had slept your fill, ye Ṛbhus, thus ye asked, O thou whom naught may hide, who now hath wakened us? The goat declared the hound to be your wakener. That day, in a full year, ye first unclosed your eyes Ṛg. 1-161-13

In an anthropomorphic manner through the conversation between the *Ṛbhus* and the nature, the secret of the dormancy period and the germination of the resting spores have been revealed. The sleeping condition is metaphor for the

dormancy period, and the question has been raised that how the dormancy period has been broken? In the same fashion the answer has been given by another goat, that hound is your awakener,

It has been asked that when you were sleeping, it is an indication towards the dormant condition of the resting spores of the plants. The resting spores are thick walled and are produced by the aquatic plants to face the unfavourable conditions in the nature, with return of the favourable condition they germinate and produce the new plant.

O thou whom naught may hide, it is a matter of surprise to *Ṛbhus*-cells that *to whom naught may hide*, it means once the life energy has been established in the cells, it may not be conceal in any way? And after the sleeping-dormant condition, the *Ṛbhus* have asked, *who has awakened us?* The answer has been given through a metaphor of goat and hound.

it means just like the goat became active to escape from the eye of the hound to see him, in the same fashion with the return of favourable conditions the germination has been started with the initiation of respiration.

It means the respiration is the hound, which has awakened the *Ṛbhu*-cell with life energy. The resting cells became active to complete their annual life cycle, it has been expressed through the year and *ye first unclosed your eyes.*

14. The Maruts move in heaven, on earth this Agni; through the mid-firmament the Wind approaches.

Varuṇa in the sea's gathered waters, O Sons of Strength, desirous of your presence Rg. 1-161-14

The parents of *Ṛbhus*-cells are heaven and earth accordingly the answer has been given that the *Maruts* move in the heaven and the earth. The *Maruts*-rain cloud is an expression for the source of water vapour's heat energy. It has been expressed

by *Agni*-energy, and from the middle atmosphere wind approaches the earth. The *Varuṇa* -gravitational force is responsible for the accumulation of water in the sea. As such the heaven and earth are the guardians of the living-beings.

With this the *Ṛbhus*- the sons of *sudhanvan* have been praised and their presence in the nature has been desired.

Life on the Earth Ozone layer

Now, ye people, take knowledge, he will speak a great mystery (?Brāhamaṇa); that is neither on the earth, nor in the sky, where by the plants breathe. Ath. 1-32-1

It has been said that he will speak a great mystery about the plant breathing-respiration. That is not on the earth, nor in the sky. Where by the plants breathe.

In the atmosphere is the station of them, as of those sitting wearied; the station of this that exists (bhūt): that the pious know or they do not. Ath 1-32-2

The truth has been revealed by an indication about the presence of the ozone layer in the mid atmosphere by saying that atmosphere is the station of them, who are sitting wearied and station of this that exists, it means life is present on the earth due to the Ozone layer and the magnetosphere in the atmosphere, The atmosphere is the place of ozone layer in the atmosphere, which absorbs ultraviolet rays, due to which the earth has cordial atmosphere for life. *Athrvaveda* 1-32-2

Figure 7 the life on the earth

Figure 9

The bull, the youngling with <u>the hump</u>, hath frolicked, the strong and never-ceasing Calf hath bellowed.

Bringing our offerings to the God's assembly, he moves as Chief in his own dwelling-places Rig-Veda 10-8-2

The universal nature of the DNA has been expressed.

L 7 1

7.1 The horn - the DNA and the life

7 2

It has been expressed that the life on the earth is very much supported by the three 1. Ozone O_3, water H_2O = 3, and Helium H3

1. Ozone O_3, the Ozone layer in the atmosphere absorbs the toxic ultra violet rays, and protects the life on the earth.

2. Water H_2O = 3, the water is life resource.

3. Helium H_3, the sun is the source of light and energy, due to the conversion of the Hydrogen into Helium on the surface of the sun.

7 3 $H \equiv H$

It has been expressed that the triple bond of the hydrogen $H \equiv H$ has the key for the DNA replication.

Two horn indicate-two helix of DNA- It has been expressed that the synthesis of the DNA and its replication is unending process. The DNA moves as chief in the cell body from generation to generation.

The three thick bold lines indicate the role of three-the Ozone, Helium and water in the evolution of the creation and life on the earth.

The trident indicates the role of triple bond and triplet code in the evolution of living-beings.

The ozone has three atom of oxygen, the source of energy of the sun is mainly due to the conversion of hydrogen in to helium H_3, the replication of DNA in the living-beings is regulated by triple bond of hydrogen, the third essential factor is water, which consist of two atom of hydrogen and one atom of oxygen = three.

The importance of these three has been indicated in the Atharvaveda symbolically.

The three meters the poet extended, the many formed one, the admirable, the all- beholding; waters, winds, and herbs- these are set in one being Atharvaveda 18-1-17

The poet- the fundamental energy has generated the three- *The three meters*, which holds waters, winds and herbs.

The three meters- indicate the origin of triple bond, which has generated the three essential factors, water-H_2O, ozone O_3 in the atmosphere and triple bond of hydrogen in plants- triplet code. They have extended many forms. They all are set in one being- fundamental energy.

These three essential factors have been indicated in the *Ṛbhu sūkta* Ṛg.1-163-1-4, the same has been indicated

symbolically on the Zebu bull seal by three thick bold lines.

Figure 10

Universal nature of DNA- Omni-form - *Viśvarūpa*

May we gain wealth, subduing with thy succour and with the Arya, all our foes, the Dasyu.

Our gain was that to Trita of our party thou gavest up Tvaṣ ṭā's son Viśvarūpa Ṛg. 2-11-19

The synthesis of DNA and its duplication is mainly dependent on its triple hydrogen bond, which has been indicated through *Trita*-Triple bond, only with the knowledge of *Trita* and its function, it has been established that *Tvaṣṭā* - DNA acts in the nature through *Trita*, due to which its omniform nature has been expressed.

All the living-beings have DNA De oxy Ribose Nucleic Acid or RNA Ribose Nucleic Acid, it has been expressed as *Viśvarūpa* of *Tvaṣṭā's* son.

XXXX

8. The Origin of Creation

Figure 11

The origin and evolution of the creation from a fundamental energy has been described in Puruṣa sūkta, where the fundamental energy has been imagined symbolically in the form of a man. The fundamental energy is universally present every where.

The creation has evolved from the fundamental energy with energy transformation. The laws of thermodynamics have been expressed by the three faces of the symbolic Man showing origin.

The horned hood expresses the synthesis of DNA from the atoms and molecules. They have synthesized the cell and the genomic chromosome. The surrounding animals have been evolved from the single cell with genetic recombination and crossing over.

The U shape structure is the symbol for the genomic chromosome and the fish like structure is symbol for the cell.

The laws of thermodynamics has been expressed *Puruṣa Sūkta* Ṛgveda 10-90 -1 to 4

a. Modern Concept of Energy

The whole universe is filled with energy, there is only energy, at some places energy get condensed in as electrons, protons and neutrons, which bind together to produce atoms, and atoms in turn bound in to the molecules that produce substances, to whom we can touch, feel and call it as mass energy. In Einstein's equation

$E = mc^2$ it means energy and mass can be converted in to each other, where E =Energy, m=Mass and c =Velocity of light.

Our universe is a vast ocean of energy, where energy under goes transformation, which follows the laws of thermodynamics. Which state that energy is unborn and eternal, but energy can be converted from one form to another form with a successive loss of energy at every transfer. The energy can be defined as capacity to do work. The energy at rest is known as potential energy and the energy at work is known as kinetic energy, within this framework all other forms of energy such as magnetic, electric, gravitational, heat and metabolic energy are working in the universe under the laws of thermodynamics, the laws of thermodynamics also state, when there is an increase it must be balanced by a decrease somewhere else. It means from the energy point of view whole universe is a single unit we are only a small part of the same.

b. Creation sacrifice- *Sṛṣṭi Yajña*

The Vedic yajña is a term for the actions and interactions, the whole creation is a *Sṛṣṭi Yajña*, where actions and interactions are going on in series The Vedic seers have indicated it in the first hymn of the Rig-Veda through the metaphor of *Yajña* Ṛg. 1-1-1

I invoke the Agni- (fundamental energy) who is the priest, Deva (fundamental particles), sacrificer, and reciter of the Sṛṣṭi, Yajña, which is the treasure of jewels.

I invoke fundamental energy, he is the priest as controller of the creation sacrifice-*yajña,* he is *the Deva*-fundamental particles of the *yajña*. He is sacrificer, it means he add fuel in the creation for *yajña*-actions and interactions, he recite - who chant the hymns during the *yajña*, it means he is the source of actions in the creation and he is treasure of jewels. It means the fundamental energy is the source of every thing, which is going on and present in the creation.

It has been expressed that the eternal fundamental energy is working everywhere, he is the source of the creation, everything, which is present in the creation is due to the eternal fundamental energy.

How the creation has been evolved? It has been indicated in the *Puruṣa sūkta*, where the fundamental energy has been imagined metaphorically in the form of a *Puruṣa*, with innumerable head, eyes and feet, he pervades the earth and the world and even above and in ten finger wide space, it indicates that the fundamental energy-*Puruṣa* is present every where.

c. Laws of Thermodynamics

The *Puruṣa Sūkta* is most important hymn of the whole Vedic literature, which symbolically reveals the secret of the creation in only sixteen-stanza. In the *Puruṣa sūkta* - fundamental energy has been described as the personal life giving principle, as well as the original source of the creation, from where the evolution of the creation has been traced, with the Laws of Thermodynamics (Ṛg.10-90-1 to 4),

A thousand heads hath Puruṣa, a thousand eyes,

A thousand feet on every side pervading earth he fills a space ten finger wide Ṛg. 10-90-1

The fundamental energy has been metaphorically imagined in the form of a *Puruṣa* The *Puruṣa*-fundamental energy has been imagined symbolically with innumerable head, eyes and feet, who pervade the earth and even above it, *he fills a space ten finger wide*, it means in the heart region. It indicates that the fundamental energy is universally present every where.

This Puruṣa is all that yet hath been and that is to be;

The lord of immortality, which waxes greater still by food

Ṛg. 10-90-2

It has been indicated here that the fundamental energy is eternal but undergo transformation, through which it increases, which is its food symbolically. The lord of immortality, it means it remains constant in all state and imperishable.

So mighty is his greatness; yea greater than this is Puruṣa. All creatures are one-fourth of him, three-fourths eternal life in heaven Ṛg.10-90-3

Here, it has been said that the cosmos is like a vast ocean of fundamental energy, the visible world is only one-fourth part of him and the rest three-fourth part of it is in the heaven above the visible world.

With three-fourths Puruṣa went up: one fourth of him again was here. Thence he strode out to every side over what eats not and what eats Ṛg.10-90-4

Here, it has been said that the three-fourth part of the fundamental energy is invisible in the heaven, only its one-fourth part is under going transformation again and again. It spreads on every side as animate and inanimate creation.

d. Formation of the Nebula

Under the laws of thermodynamics how the process of the creation has been initiated? It has been indicated through the formation of the nebula in the early stages of the development in a symbolic fashion.

From him Virāj was born; again Puruṣa from Virāj was born.

As soon as he was born he spread eastward and westward o'er the earth Ṛg.10-90-5

From the *Puruṣa, Virāj*-infinite universe was born, from that again *Puruṣa* was born, the reciprocal inter-relationship has a deep meaning, which is a indication towards the generation of the magnetic energy due to the spinning of the charged particles and the astronomical bodies.

Tasmād Virāṭ ajāyata- It means in the precosmic conditions only *Puruṣa-* fundamental energy was there. From him *Virāj* was born, it means infinite universe with the charged particles came in to the existence, which produce the

nebula in the earlier stage of the creation.

Virājo adhi Puruṣaḥ- again from the *Virāj, Puruṣa*- fundamental energy was born. It means due to the spinning movement of the charged particles, *Puruṣa* (fundamental energy) was generated in the nebula and the gaseous clouds.

Sa jāto aty aricyata- he spreads in all the direction. It means due to the spinning movements of the charged particles in the Nebula, the gaseous clouds have been formed. The gaseous clouds have spread in all the directions. It is an indication towards the modern Big-bang theory.

Paścād bhūmim atho puraḥ- after it the earth and *purah*, it means the earth and the planets have came in to the existence after this.

a. Electron theory

When God's prepared the sacrifice with Puruṣa as their offering,

Its oil was spring, the holy gift was autumn; summer was the wood Ṛg.10-90-6

Yat Puruṣeṇa haviṣā- it means with the stimulation from the *Puruṣa*- fundamental energy the *Deva*- charged particles performed the sacrifice- series of actions and interactions.

Devā yajñam atanvata-The process of the *Yajña*--actions and interactions was spread over by the *Deva*- fundamental charged particles.

Vasanto asyasid ajyam - for the series of actions and interactions, the spring season is like *Ghee*-,

Griṣma idhmaḥ, sarad dhavi - the summer-hot season act as fuel and autumn-cold season act as ***Havi***- stimulator. It

indicates about the importance of the temperature pressure gradient for the creation, under which synthesis and disintegration is going on in the nature in a cyclic manner.

f. Atomic structure

They balmed as victim on the grass Puruṣa born in earliest time,

With him the Deities and all Sādhyas and Ṛṣis sacrificed Ṛg.10-90-7

Tam yajñam*- In this great sacrifice of the creation*

Barhiṣi praukṣan puruṣam jātam agrataḥ - The fundamental energy, which was generated in the earlier stage act as the platform, with it the charged particles have performed the sacrifice, it means formation of the atom has been indicated, where positively charged proton and neutral neutron form the nucleus and around it negatively charged electrons move in elliptical orbits. Due to the spinning movements of the electrons around the nucleus magnetic energy generates. It has been expressed in a symbolic fashion through the ***barhiṣi-*** platform is the nucleus and ***praukṣan-*** is an expression for the generation of magnetic energy in the atom. The energy generated earlier in the atom as *Puruṣa*-fundamental energy has been expressed.

Tena devā ayajanta sādhyā Ṛṣayaś ca ye-- than the ***Deva*** -fundamental charged particles undergo the series of actions and interactions from them **Sādhyas**-matter and the **Ṛṣis** have been generated, which acted accordingly. *Sādhyas* is a symbolic expression for the ingredients of the creation and *Ṛṣ is*- is a symbolic expression for the living-beings.

g. Components of the creation

From that great general sacrifice the dripping fat was gathered up.

He formed the creatures of the air, and animals both wild and tame Ṛg.10-90-8

Tasmād yajñāt sarvahutaḥ sambhṛtam prsadājyam- It means from that great sacrifice-actions and interactions, the complex substances like *curd and Ghee* have been synthesized. The *curd* is a symbolic expression for the condensation and gathering of the materialistic substances. The *Ghee* is the symbolic expression for the complex substances of the living-beings.

h. Life cycles of the living-beings

Pasūn tān cakre vāyavyān, araṇyān gramyaś ca ye - and then in the series the animal cycle of the air, forest and the village were born.

It has been indicated symbolically that all the complex substances of the nature and the life cycles of the creatures have came in to the existence due to the chain reactions.

In the primitive conditions formation of the nebula was there with the interactions of energy and generation of the charged particles, due to the movements of charged particles, magnetic energy gets generated. The charged particles with their opposite charges bind together to produce atoms, atoms consists of subatomic units-electron, proton and neutron. Electrons are extremely light having cloud like density of mass energy with a negative electric charge, protons are much larger in mass than electron and have a positive charge, neutron have a mass energy equal to that of proton and are electrically neutral. Although other types of sub atomic particles have also been identified, but the properties of atoms

and their ability to react chemically can be explained on the basis of these three elementary particles, which constitute the base of the whole nature.

In a atom positively charged protons and neutrons constitute the nucleus, around which vibrating clouds of negatively charged electrons move in elliptical orbits, due to the vibratory movements and spin of electrons, magnetic energy get generated. The magnetic energy with the electrostatic force of nucleus produces electromagnetic energy, which binds the atoms of similar nature. The atoms of different elements can produce diatomic molecules, even poly atomic complex molecules and chains of thousand of atoms like RNA and DNA may have produced. Which are the products of chemical interactions of the outermost electrons to yield chemical bond or a covalent bond, when two atoms share electrons or ionic bond, when electrons are transferred from the atom to atom. It is the electromagnetic energy, which initiate the formation of bonds. Through these bonds the electromagnetic energy has maintained its continuity in atoms, molecules, substances and living-beings. It has been explained metaphorically through both the father and both the son.

Both their father are also their son; both the chief are also the meanest (Kaniṣṭha) of them; the one god, who has entered in to the mind, born the first, and he within the womb Ath. 10-8-28

It has been expressed that the fundamental life energy-consciousness has generated first in the atoms and in the womb. It has been termed as first born, than the fundamental energy proliferate along with the electrostatic energy of the

nucleus as electromagnetic bond energy. They together have been termed as both the father and their son metaphorically. The electromagnetic energy is present in the universe and at the micro level in the atom and the cell. Hence it has been termed as chief as well as minute (*kaniṣṭha)*

From that great general sacrifice Ṛcas and Sāma hymns were born.

There from were spells and charms produced; the Yajus had its birth from it Ṛg.10-90-9

Tasmād yajñat sarvahuta Ṛcaḥ, sāmāni jajñire tasmād

Yajus tasmād ajāyata.

From that great series of actions and interactions, the atom, molecules, matter, and the living-beings have evolved, accordingly, *the Ṛcas, Sāma* hymn and the chants, the meter and *Yajus* were born. It means the source of knowledge about the language and *yajus*-sacrificial formulas are due to him.

From it were horses born, from it all cattle with two rows of teeth:

From it were generated kine, from it the goats and sheep were born Ṛg.10-90-10

Tasmād aśvāḥ ajāyanta, ye ke cha ubhayādataḥ- From that great sacrifice arose horse and all cattle such as have two rows of teeth.

gāvo ha jajñire tasmāt; tasmāj jātā ajāvayaḥ- From him *gavo and ajavayah* were born.

It means all types of higher animals have been evolved from him. In the Vedas five types of animals *Pañca Jana*

have been recognised horse, cow, goat, man and plants.

The stress on the *Gāvo and Ajā-vayah* separately is an indication towards the nourishment of the living creatures, where *Gāvo-* cow, who feed the human beings through milk and *Ajā-avayah,* it is a indication towards unborn plant pigment chlorophyll as protector, which is present in the plant cell as de-novo with cell division. Due to the presence of chlorophyll the plants are primary food producer, and they feed the animals. It means *Ajā* means unborn and *avayah* is a derivative of *Avi* (protector of plants- chlorophyll).

It can be confirmed from Atharva-veda-

Avirve nam devtartenaste parivrata,

Tasya ropeneme vraksha harita hariesrazah

Atharva-veda 10-8-31

The deity *Avi* by name sits enveloper with right; by her form these trees (are) green, green-garlanded. The presence of chlorophyll has been indicated as protector of the plants.

i. Human society

Tracing the evolution of the creation from the *Puruṣa* - fundamental energy, it has been indicated that the human-beings have also evolved from the same. Accordingly the importance of the persons in the society, according to the quality has been indicated metaphorically.

When they divided the Puruṣa how many portions did they make?

What do they call his mouth, his arms? What do they call his thighs and feet Ṛg.10-90-11

***Yat Puruṣam vyadadhuḥ, katidhā vi akalpayan*?** How the

Puruṣa- the fundamental energy has been imagined in the society?

Mukham kim asya Kim bāhu- What is his mouth, the arms.

Kim ūrū pāda ucyete ş from where his thigh and feet have been produced.

He Brāhamin was his mouth, of both his arms was the Rajanya made.

His thigh became the Vaiśya*, from his feet Sudra was produce Ṛg.10-90-12*

Brāhmaṇo' asya mukham asid, Brāhamin are like his mouth,

Bahu rajaniah krtah**;** *Kṣatriya* is like his arms.

Ūrū tad asya yad vaiśyaḥ**;** *Vaiśya* is like his thigh**,**

Padbhyām Śudro ajāyata**,** from his feet *Śudra* is born.

The answer has been given that **Padbhyām Śudro ajāyata** - that from his feet *Śudra*- the persons are born without knowledge, which indicates that all are initially born as ignorant of knowledge. With the development of the physical body, with their mental ability and the quality, they acts in the society as *Vaiśya,* who support the society through business, they are like thigh of the *Puruṣa,* the warrior class who protects the society with physical strength, they are like his arms, and the intellectuals, who give guidance to the society through knowledge, they are like his mouth.

It is important to note that only the birth of the *Śudra* from the feet has been indicated, otherwise it has been said that *Brāhmin* became like his mouth, *Kṣatriya* became like his

arms and *Vaiśya* became like his thigh. It means all are born like *Sudra* with birth,

j. Human body as microcosm

The human body is a microcosm inside a macrocosm- it has been indicated through the reciprocal interrelationship of the human body and the universe.

The Moon was gendered from his mind and from his eye the sun had birth;

Indra and Agni from his mouth were born, and Vāyu from his breath Ṛg.10-90-13

In the human-beings, the mind is like a moon, from the eyes -the sun had birth, it means the man has the vision through the eyes to see the sun, the *Indra (Electricity) and Agni* - Heat energy are born from the mouth of the *Puruṣa*, through which the man has life. In the man breathing is like the breath of the fundamental energy-*Puruṣa*.

It means through these organs of the human body, the man has relationship with the universe.

Forth from his navel came mid air; the sky was fashioned from his head;

Earth from his feet, and from his ear the regions. Thus they formed the world Ṛg.10-90-14

Comparing the universe with the man, it has been said that the mid air is the naval centre of the creation, which nourish the creation through the ionosphere--processes, the sky has been designated as his head, from where the sun protects the creation from all side. The earth has been compared with his feet, the ear has been compared with the regions, through

which man has the sense of direction.

It means the universe has the connection with the human body through the mid air, sky and the earth, where ear give the sense of direction, thus they have indicated the co relation of the human body with the universe through reciprocal interrelationship.

k. Cosmic Principles

The creation is working as a system under the cosmic principles. These principles have been given symbolically in the last.

Seven fencing -sticks had he, thrice seven layers have been prepared, When the Gods, offering sacrifice, bound, as their victim, Puruṣa Ṛg. 10-90-15

It has been expressed that the process of creation has been initiated. When the fundamental particles are bind in the atom, due to the spinning of the electrons around the nucleus electro-magnetic energy generates, in this way the fundamental energy (*Puruṣa)* has bound in side the atoms, it binds the atoms and accordingly the creation came in to the existence. For the functions of the creation seven sticks (seven planets), twenty-one fuel are in operation, these twenty-one fuel represents twelve months, six seasons and the three weather (Hot, cold and the rainy season). Through them the creation is working as a system, it has three centres -sky, atmosphere and the earth as indicated by the three layers. In this way a picture of the creation system has been expressed symbolically.

Gods sacrificing sacrificed the victim: these were the earliest ordinances. The mighty ones attained height of heaven, there where the Sādhyas, Gods of old, are dwelling

Ṛg. 10-90-16

The *Yajña*-sacrifice means action and interactions, here it has been said that from actions and interactions again actions and interactions get generated, where according to the cosmic law-*Dharma*, *Deva* - fundamental particles are the first, with their activity they get reached to the height of matter and the fundamental particles- *Dev*a. It means the fundamental particles are the first in the series of actions and interactions. Through their activity they are converted into the matter and again reach to their original old state of *Deva* - fundamental particle through reversible reaction. It is an indication towards the natural cycles, through which the natural components have been synthesized and disintegrate in the reversible direction.

The *Puruṣa sūkta* is considered as latest among the Ṛgvedic hymns, it reveals the climax of the Vedic culture. It has the credit for the evolution of the spiritualistic way of life after the *Vedic* culture and *Brāhmaṇ* period, when the meaning of *Yajña,* is interpreted as only ritual.

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9. How the creation came in to the existence?

The single unified force

The modern Science has explored the secret of creation gradually with modification of their past experiences. In this reference Einstein conceived of a grand unified theory (GUT) of all the five forces of nature. Today with the discovery of electro- weak force by Abdus Salam, Sheldon Glashaw and Steven Weinsberg, three of the five forces in nature (electricity, magnetism and weak - interaction force) have been unified. The fourth force, the strong interaction force that binds the nucleus inside the atom is expected to be unified, as it is claimed today by some scientists. The final stumbling block remains with gravity. For quantify gravity as Stephen Hawking puts it. The scientists have to reach a state of singularity beyond space and time when this one force existed without disintegration.

The successful experiment on Bell's theorem in 1972 by Clauser, Freedman, David Böhm, and Alain Aspect in 1985, science discovered a synchronistic non- locality, where at the base of matter - non - local causes operate and similar particles at a space like distance or some how - instantaneously interconnected without the connection of any signal like light or electromagnetic waves.

The Quest of Creation Higgs; God particle & Vedas

The discovery of a 'Holistic paradigm' in science replacing the old dualistic paradigm has opened a new chapter to think over origin of cosmos.

David Böehm wrote on this great finding. "The essential new quality implied by quantum theory is non - locality. This leads to the radically new notion of the unbroken wholeness of the universe.“ (Foundation of Physics, 5, 1975, P 94)

Now the scientists have realized the notion of 'Holistic paradigm' in the light of recent quantum theory, which leads to unbroken wholeness of the universe. The same echo is coming from the Vedic science, where the one unified force has been imagined metaphorically as *Yakṣa.*

The fundamental energy has been described as supporter, regulator and supporter of the creation, from whom the creation came in to the existence. He regulates the creation through oxidation and reduction reactions in the nature A. 10-7-42,43,44, as a golden embryo, he is omnipotent and omnipresent, he sustain heaven and earth, he stood in the midst of creation as *Yakṣa,* all are set in him like the branches of a tree.

A great monster (yakṣa) in the midst of the creation (bhuvana) strode? (krānta) in penace on the back of the sea- in it are set(cri) whatever gods there are like the branches of a tree roundabout the trunk Atharvaveda 10-7-38

It has been indicated through the metaphor of the tree that all the components of the nature have evolved from the fundamental energy, and all are linked with him like the branches of a tree. He is in the middle of the creation. It indicates symbolically that all the components of the creation and nature are interconnected with fundamental energy in the

centre.

It has been indicated on the seal figure - 1 (fig. 6.3 tablet Harappa. H95-2523)

Figure 12

A tree growing from a low platform, this sinuous tree with short leaves, Terracotta tablet, Harappa H95-2523.

Figure - I

The pictographic symbols indicate the evolution of the creation symbolically from the fundamental energy

A great monster (yakṣa) in the midst of the creation (bhūvana) strode? (krānta) in penace on the back of the sea- in it are set(cri) whatever gods there are like the branches of a tree roundabout the trunk A. 10-7-38

It has been indicated through the metaphor of the tree that all the components of the nature have been evolved from the fundamental energy. All are linked with him like the branches of a tree. He is in the middle of the creation. It indicates that

all the components of the creation and nature are interconnected with the fundamental energy.

In this reference the modern Geneva experiment - The Large Hadron Colloider machine, shows the curiosity and quest to know the secret of creation, has not an end but a beginning to explore the nature of cosmos and its origin in terms of science.

In this connection it is worth to trace the secret in the Vedas, where we find similar quest to know the secret of creation. The place, where the modern researches about the origin of cosmos have reached in uncertainty, the same is the beginning point of the Vedic science of cosmos. Prior to the origin of cosmos, when neither time nor space was created, in this pre-cosmic condition there was only one force, which began to disintegrate from infinite to finite with its back ground in the infinite cosmos, accordingly the creation came in to the existence under spacețtime relation ship. This one force is one-eternal fundamental energy. The same has been indicated, with origin of the 'Solar System' symbolically.

Origin of the Cosmos

Pre-cosmic condition

The origin of the creation has been traced from non-existent (*asata*), It represents the pre cosmic stage prevailing prior to the origin of the universe. At that time only deep darkness was there. The primordial calm and quiet condition of the single fundamental energy, which has a potentiality of existence, it has been expressed symbolically.

Then was not non--existent nor existent: there was no realm of air, no sky beyond. What covered in and where? And what gave shelter? Was water there, unfathomed depth of

water? Ṛg. 10-129-1

Death was not then, nor was there aught immortal: no sign was there, the day's and night's divider.

That One Thing, breathless, breathed by its own nature: a part from it was nothing what so ever Ṛg. 10-129-2

Prior to the origin of cosmos, when neither time nor space was created, it has been expressed *then was not non--existent nor existent:* in this pre-cosmic condition, there was only one force, which began to disintegrate from infinite to finite with its back ground in the infinite cosmos. It has been expressed symbolically through breathless, breathed by its own nature. Accordingly, the forces of nature came in to function with generation of heat energy.

The heat energy is the pioneer energy, which has generated the fundamental particles of the nature. It has been expressed through the words 'great power of warmth' in the pre-cosmic condition, where neither time nor space was born, at that time only deep darkness was there *Ṛg.*10-129-3

Darkness there was: at first concealed in darkness this all was in discriminated chaos.

All that existed then was void and form- less: by the great power of Warmth was born that Unit Ṛg.10-129-3

How the cosmos came in to function? It has been expressed symbolically by the origin of the desire in the beginning, *Desire the primeval seed and germ of Spirit.*

No body can claim to be the witness of the origin of the cosmos, but the facts can be visualized hypothetically only, the source of the finite cosmos is in the infinite, the infinite is fundamental energy and finite is the visible cosmic world, which we can be visualize hypothetically with insight in the

heart. The relation of the visible cosmic world with infinite fundamental energy has been expressed by the existent's kinship in the non-existent-fundamental energy within pre-cosmic condition. It has been expressed by saying that *Sages who searched with their heart's thought discovered the existent's kinship in the non-existent Ṛg.10-129-4*

There after rose Desire in the beginning, Desire the primal seed and germ of Spirit.

Sages who searched with their heart's thought discovered the existent's kinship in the non-existent Ṛg. 10-129-4

Transversely was their severing line extended: what was above it then? and what below it?

There were begetters: there were mighty forces, free action here and energy up yonder Ṛg.10-129-5

It has been expressed that with generation of heat energy, it has spread in all directions with free action and generation of mighty forces ***(electricity, magnetism and weak - interaction force)*** here within view and above it fundamental energy came in to force. It has generated a series of actions and interactions with fundamental particles just like begetters. Accordingly the cosmic world came in to existence.

In the conclusion of the hypothesis it has been expressed that the proposed hypothesis about primordial condition of the beginning, no body can claim to see it, on the basis of the knowledge of the creation the hypothesis has been proposed for the future generation and age.

Further it has been proclaimed that

Who verily knows and who can here declare it, whence it was born and whence comes this creation?

The Gods are later than this world's production. Who knows

then whence it first came into being? 6

He, the first origin of this creation, whether he formed it all or did not form it, whose eye controls this world in highest heaven, he verily knows it, or perhaps he knows not Ṛg.10-129-7

After going in to the depth of the subject the seer has expressed his thoughts that whatever enquiry we have done is experimental only, who can say exactly that from where the creation came into the existence. He the first origin of the creation (single unified force-fundamental energy) whether he formed it or did not form it, he control the creation, he verily knows it, or perhaps he knows not.

Today with the discovery of electro- weak force by Abdus Salam, Sheldon Glashaw and Steven Weinsberg, three of the five forces in nature (electricity, magnetism and weak - interaction force) have been unified. The fourth force, the strong interaction force that binds the nucleus inside the atom is expected to be unified, as it is claimed by some scientists. How this unified force can be explained? It has been explained symbolically in Ṛg.10 - 130.

Origin of the solar system and nature

- How the solar system and nature came into function with origin of the cosmic world has been explained symbolically. In the beginning of the hymn, it has been expressed that the hypothesis about the origin of the creation, which has been expressed in the hymn is for the future generation of the living-beings, when these hymns will be chanted in the future. *Let us with tuneful skill proclaim these generations of the*

Gods, that one may see them when these hymns are chanted in a future age Ṛg.10-72 1

These Brāhmaṇaspati produced with blast and smelting, like a smith, Existence in an earlier age of Gods, from Non-existence sprang. 2.

The creation has been evolved from a fundamental energy. How the fundamental energy has generated the cosmic world and how the solar system with nature came in to the existence. It has been expressed symbolically that *Brāhmaṇaspati*-fundamental energy has produced the cosmic world with blast and smelting just like a smith. It has been expressed that Just like a blacksmith blows up his fire and melts metal in the same fashion the non-existent -fundamental energy sprang up in to the existence with condensation of the heat energy in to the fundamental particles of the *Aditi*-micro nature, with this the non existent(precosmic calm and quiet condition) sprang in to being.

Existence, in the earlier age of Gods, from Non existence sprang. There after were the regions born. This sprang from the productive power Ṛg. *10-72-3*

It has been explained that*: Brāhmaṇaspati*- fundamental energy has generated the fundamental particles first, after this the regions- space came in to existence.

Earth sprang from the productive power; the regions from the earth were born.

Dakṣa was born of Aditi and Aditi was Dakṣa's Child.Ṛg.10-72- 4

The earth is a planet of solar system, it has been indicated that due to the productive power of the charged particles of the nature earth came in to the existence. Accordingly we

visualize the regions from the surface of the earth. The reciprocal relationship *of Aditi-Dakṣa-Aditi-* indicates the origin of the nebula from primordial condition of nature with generation of the charged particles, accordingly from nebula the solar system and the infinite nature came in to the existence.

For Aditi, O Dakṣa, she who is thy daughter was brought forth. After her were the blessed Gods born sharers of immortal life. 5

In an anthropomorphic manner symbolically addressing to *Dakṣa*-nebula, it has been indicated that from nebula the *Aditi-* infinite nature came in to function with the natural forces. The natural forces *electricity, magnetism and weak-interaction force* have been indicated as sharer of immortal life with infinite nature.

It has been explained that with the formation of the fundamental particles *Aditi*-micro nature came in to the existence then in succession arose the earth, the spaces, *Aditi* with *Dakṣa;* and after *Aditi* the Gods (natural forces) were born. The natural forces then brought the sun forward. There were eight sons of *Aditi* but eighth*, Mārtaṇḍa* she cast away; she brought him to be born and to die.

It is a symbolic expression for the evolution of the solar system and the *Aditi*-infinite nature. The reciprocal interrelationship of the *Aditi -Dakṣa -Aditi* reveals the fact that in the initial stage of the evolution *Aditi* -micro nature with the fundamental charged particles came in to the existence. From *Aditi*-micro nature the *Dakṣa-* Nebula came in to the existence, from *Dakṣa*-Nebula the solar system came in to the existence. Accordingly with time *Aditi*-infinite nature came in

to the existence with functions of natural forces.

Aditi represent Nature and our solar system is part of Nature, accordingly how the solar system came in to existence. It has been indicated through the eight sons of *Aditi symbolically*. The eight sons of *Aditi* are eight planets of our solar system out of which, she cast away *Mārtaṇḍa* to be born and to die, it means among the planets of the solar system out of eight one Sun is different. It has been explained by saying that the Gods-*Devas*- fundamental particles then brought forward the Sun. The formation of the atoms and the nuclear reactions on the surface of sun with the release of solar winds has been indicated through the clouds.

When ye, O Gods, in yonder deep close clasping one anotherstood.Thence, as of dancers, from your feet a thickening cloud of dust arose 6

Symbolically addressing to the charged particles in the anthropomorphic manner formation of the atom has been indicated.

When, O ye like Yatis, ye caused all existing things to grow, then ye brought Sūryā forward who was lying hidden in the sea 7

Symbolically addressing to the charged particles in an anthropomorphic manner, it has been indicated that the charged particles are building block of the creation. The charged particles are responsible for the synthesis of all existing things. They brought forward the sun as source of energy in the ocean of cosmic world of the solar system.

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Eight are the Sons of Aditi who from her body sprang to life. With seven she went to meet the God: she cast Mārtaṇḍa far

away. 8

The eight sons of *Aditi*- nature is a symbolic expression for the eight planets of the solar system including earth, where on the earth nature exhibit its function under cyclic reactions with sun as the source of charged particles and energy. It has been expressed by saying that she cast *Mārtaṇḍa-sun far away.* Today we know that our solar system has more than seven planets including Hershal, Neptune and Pluto. It seems probable that the Vedic seers have given importance to the seven planets, which influence life and climate on the earth at a length. As such in the Indian Astrology, the importance has been given to seven planets and with these the Rahu and Ketu have been considered as shadow planets. It is in the general practise in Indian Astrology.

So with her seven Sons Aditi went forth to meet the earlier age. She brought Mārtaṇḍa thitherward to spring to life and die again ***Ṛg. 10-72-9***

The nature is complete in it self, its functions are under the control of Bio-Geo-Chemical cycles. It has been indicated symbolically by saying that the *Aditi*-nature went forth to meet the earlier age with her seven sons- planets. It means the natural charged particles under go cyclic chain reactions, where they reach to their starting point, from where the cycle has been started.

Sṛṣṭi Yajña **- Creation Sacrifice**

The structure and function of the creation has been indicated symbolically. It has been expressed that 101 elements in the nature are just like 101 ministers, they have stretched the creation, just like a spider's web in the nature. It is due to the

cyclic chain reactions in the nature. Accordingly, the food chains and food webs in the nature have been expressed in a symbolic fashion.

The sacrifice drawn out with threads on every side, stretched by a hundred sacred ministers and one,

This do these Fathers weave who hitherward and cry, Weave forth, weave back Ṛg.10-130-1

It has been expressed that the creation sacrifice is just like a spider's web, it has threads on every side stretched by the hundred sacred ministers and one. The food chains and food webs in the creation-system have been indicated Ṛg.10-130

The Man extends it and Man unbinds it: even to this vault of heaven hath he out spun it. These pegs are fastened to the seat of worship: they made the Sama-hymns their weaving shuttles Ṛg.10-130-1

It has been expressed that the *Puruṣa*- unborn fundamental energy is in the picture for the synthesis and disintegration in the nature through electromagnetic bond energy. The Bio-Geo-chemical cycles in the nature have been expressed through the pegs and the *Soma* -synthesised the materials, they are acting just like the weaving shuttles.

The Man bind it and Man unbind it- through it the importance of the bond energy for the synthesis and disintegration of the synthesised substances and the components has been indicated. The Man- represents *Puruṣa*-fundamental energy. Now we know the fact that for the synthesis and disintegration of the matter in the nature, the bond energy is responsible. The bond energy is a sort of magnetic energy, it has been indicated by the *Puruṣa*

metaphorically.

What were the rule, the order and the model? What were the wooden fender and the butter?

What was the hymn, the chant, the recitation, when the Gods *all Deities paid worship?*

The questions have been raised regarding the model of the creation, how it has got the place, when the charged particles have generated the world.

Closely was Gāyatrī conjoined with Agni, and closely Savitā combined with Uṣniha, brilliant with Ukthas, Soma joined Anustup: Bṛhaspati's voice by Bṛhati was aided.

The formation of the charged particles with condensation of heat energy has been expressed by saying *Gāyatrī* conjoined with *Agni*-heat and *Savitā* - stimulator has stimulate it with change in temperature pressure gradient, accordingly with the movements of the charged particles around the *Bṛhaspati*-nucleus, *Soma* -magnetic energy has been generated.

The answer has been given metaphorically that creation is just like a song of fundamental energy, where *Gāyatrī* represent charged particles with energy, *Uṣniha* represent heat, which warm up brilliantly with *Ukthas, Soma*-magnetic energy is just like *Anūstup and Bṛhaspati*-nucleus of the atom sing the song with *Bṛhati*.

Viraj adhered to Varuṇa and Mitra: here Tristup day by day was Indra's portion.

Jagati entered all the Gods together: so by this knowledge men were raised to Ṛṣis.

It has been expressed that with the formation of atom *Viraj*-fundamental energy adhered to *Varuṇa and Mitra.*

With Varuṇa and *Mitra*, it has been expressed that with formation of the atom, the rays of light-received gravity, and then *tristup* day by day was *Indra's* portion. It means with time the magnetic energy with *Indra* - electrostatic energy of the nucleus has generated the electromagnetic energy in the atom. Accordingly, the charged particles-*Tristup* has found the place in the atom for their existence, and in turn the *Indra -bond energy* became the part of the atom.

The formation of the atom is the main cause of the creation, the atom- *Varuṇa and Mitra,* has the *Tristup*- the three charged particles, and in turn the charged particles together have find their place in the atom, molecules - *Jagatī,* and accordingly, the human species has evolved from the molecules and matter. It has been expressed by, "the men-fundamental energy has been raised to the stage of *Ṛṣis* ". The *Ṛṣi* is a symbolic expression for the human-being.

So by these knowledge men were raised to Ṛṣis, when ancient sacrifice sprang up, our Fathers.
With the mind's eye I (Spirit) think that I (Fundamental energy) behold them who first performed this sacrificial worship.6

Through the knowledge of the creation it has been explained that Men- were raised to *Ṛṣis, when ancient sacrifice sprang up, our Fathers.* The father is a symbolic expression for the charged particles, with the actions and interactions of the charged particles in the series the creation has its beginning. In the sacrificial worship-series of actions and inter actions,

the charged particles are the first. Hence the charged particles have been termed as fore fathers metaphorically to indicate the series of the actions and interactions; it is just like the series of the generations. Accordingly the living-beings have been evolved (men), the living-beings-men were raised to *Ṛṣis* intellectual human species. Hence it has been expressed that with my mind's eye I behold them (charged particles), who the charged particles, which have first performed the sacrificial worship.

It means the truth behind the creation can be searched and can be verified within one's own self. Hence the seer has expressed through his spirit-consciousness (Fundamental energy) in an anthropomorphic fashion that w*ith the mind's eye I (Spirit) think that I (Fundamental energy) behold them who first performed this sacrificial worship.6* It means, after realising the truth behind the creation, a human-being can speak in this fashion after self realization, just like the revelation of Gita from the mouth of lord *Kṛṣṇa* in Śrimad bhagvat Gītā focussing the self in the centre.

It is possible due to the fact that the human body represents a microcosm in side a macrocosm, and the body is complete in it self. Where, in the body one can realize the presence of the self in the body, through self realization-yogic practise of meditation.

The supporter of the creation

The Seven God like *Ṛṣis*, they who were versed in rituals and meters, it is a metaphoric expression for the seven solar rays of the sun light and the seven planets, they are well versed in

rituals and meters of the creation system. They operate and regulate the system through their electromagnetic waves and the infrared rays with sun in the centre.

Viewing the path of those of old, the sages have taken up the reins like chariot-drivers Ṛg.10-130-7

The seven rays and the seven planets are just like the chariot driver of the solar system. They follow the path of their old ancestors, and in succession the evolution proceed further.

It has been indicated that the life of the living-beings are regulated by the hereditary characters of their old ancestors, the sages (thought energy) of the past birth acts as reins like chariot-drivers.

These are the supporters of the creation, under which the creation is working as a system.

Conclusion - Single unified force

In a symbolic fashion the questions have been raised regarding the origin and evolution of the creation, with a curiosity to know the principles under which the creation is working.

The answers have been given metaphorically with a conclusive remark. The *Viśvakarma* has produced the earth and heaven with mighty power.

What were the rule, the order and the model? What were the wooden fender and the butter?
What were the hymn, the chant, the recitation, when the God all Deities paid worship? Ṛg. 10-130-3

What was the place whereon he took his station? What was it that supported him? How was it?

Whence Viśvakarma seeing all, producing earth with mighty power disclosed the heavens Ṛg.10-81-2

The questions have been raised in different ways regarding the creation symbolically, and their answers have been given symbolically about the place and the support, when *Viśvakarma*-the creator *has produced the mighty earth.*

He who hath eyes on all sides, round about him, a mouth on all sides, arms and feet on all sides.

He the Sole God, producing earth and heaven, weldeth them, with his arms as wings, togetherṚg.10-81-3

Metaphorically, the omnipotent nature of the fundamental energy has been expressed, the bond energy of the atoms has been expressed, that it is just like his arm as wings, which bind the atoms.

What was the tree, what was wood in sooth produced it, from which they fashioned out the earth and heaven?

Ye thoughtful men enquire within your spirit whereon he stood when he established all things Ṛg.10-81-4

The answer of this question has been given that *the Viśvakarma* has produced the earth and heaven with mighty power. We can grasp the answer in modern terminology that with transformation of the fundamental energy first in the series charged particle have been generated, with condensation of heat energy in them. There after change in temperature pressure gradient has stimulated the process. At a particular stage with cooling, the charged particles have generated the atom, with spinning movements of the electrons around the nucleus, and generation of the magnetic energy in side the atom. The magnetic energy of the atom is synonym to the fundamental energy, hence it has been said that the

charged particles, and fundamental energy have found the station. It has supported the creation, and the same is the building block of the creation. It has been expressed metaphorically that fundamental energy - *Viśvakarma* has eyes on all sides round about him, a mouth on all sides, arms and feet on all sides, indicating the omniform and omnipotent nature of the fundamental energy in the creation.

It has been expressed that fundamental energy is the single unified force, which has generated the earth and heaven. The magnetic energy in the atom with *Indra* - electrostatic energy of the nucleus has generated the electromagnetic bond energy.

The electromagnetic bond energy is the shaper of the creation with bond energy. It has been expressed metaphorically *He weldeth them, with his arms as wings, together, the Sole God, producing earth and heaven.*

The formation of the atom is the main factor in the evolution of the creation, and accordingly, the human species has been evolved. It has been indicated by the men - the fundamental energy, has been raised to the stage of *Ṛṣis,* with formation of the atom and evolution. The *Ṛṣis* is a symbolic expression for the human species.

They who were versed in ritual and metre, in hymns and rules, were the Seven God like Ṛṣis.

Viewing the path of those of old, the sages have taken up the reins like chariot-drivers Ṛg.10-130-7

The Seven God like *Ṛṣis,* they who were versed in rituals and meters, it is a metaphoric expression for the seven solar rays of the sun light and the seven planets, they are well versed in rituals and meters of the creation system. They operate and regulate the system through their electromagnetic waves and

the infrared rays with sun in the centre.

The Seven God like *Ṛṣis*, they who were versed in rituals and meters, it is a metaphoric expression for the seven solar rays of the sun light and the seven planets, they are well versed in rituals and meters of the creation system. They operate and regulate the system through their electromagnetic waves and the infrared rays with sun in the centre.

Viewing the path of those of old, the sages have taken up the reins like chariot-drivers Ṛg.10-130-*7*

It has been indicated that the life of the living-being is regulated by the hereditary characters of old ancestors, the sages (thought energy) of the past birth acts as reins like chariot-drivers.

How the seven planets influence life and climate on the earth, it has not been established fact in modern science, similarly about the cycle of the rebirth and death there is no scientific work has been done so far.

The old ancestor is a metaphor for the hereditary characters, they regulate the life cycle, through the hereditary characters, and deeds of an individual of his past birth, regulates the life like a chariot driver. On the earth, the first cell and the genetic material chromosome have maintained their continuity through multiplication and reproduction. It has been indicated by the old ancestor and the sages metaphorically represent the past deeds of an individual, which control the life of an individual just like chariot driver control the horse through reins.

The creation is a complex network system just like a spider's web in the nature. Accordingly the origin and evolution of the creation has been described symbolically, it is

very difficult to grasp the conclusions drawn by the seers in the Vedic hymns. Hence it has been expressed in the final conclusion.

The waters they received that germ primeval wherein the Gods were gathered all together. The creation is rested set upon the Unborn's navel, where in abide all things existing Ṛg. 10-82-6, accordingly to search the truth behind the creation, the self enquiry of the truth has been suggested with a warning. By saying, *Ye thoughtful men enquire within your spirit whereon he stood when he established all things Ṛg.10-81-4*

Ye will not find him who produced these creatures: another thing hath risen up among you.

Enwrap in misty cloud, with lips that stammer, hymn-chanters wander and are discontented Ṛg.10-82-7

It has been expressed that due to the individual consciousness a self-ego has arisen among you, which has enveloped the self in misty clouds, only with chanting the hymns you could not search the truth.

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10. Summary of the Creation

The ***Hiraṇyagarbha Sūkta Ṛg 10-121,*** has been depicted on the seal symbolically, which explain the origin and evolution of the creation, and the building blocks of the creation system.

The Unicorn, it is a metaphoric representation of fundamental energy in the cosmos, the single horn indicate the evolution of the creation from an single ancestor, the incense burner below the neck is symbol of light and energy, it indicates sun as the source of energy.

The evolution of the creation has been depicted in the series, indicating the formation of Nebula, from it the charged particles with atom came into the existence. **The atom** constitutes the building block of the creation. The atoms have synthesized the molecules of DNA, and the **chromosome**. The atom and the molecule of the DNA are the building blocks of the territories, and the communities of the living-beings. **The power house** of the living-beings has been indicated by the arch with knob like structures, around the deity, which indicate the oxidative coupling chain reactions in the mitochondria.

Figure 13

Figure - II Unicorn sealing and pictographs on one side,

a. Square molded tablet from Harappa: with impressions on both faces. The obverse sealing has five script signs, and shows a finely carved unicorn facing a ritual offering stand.

Material terracotta

Dimension 2.0 x 1.89 cm thickness Harappa Museum. H95-2485

The Unicorn indicates, the fundamental energy, the incense burner indicates, sun as the source of light and energy.

In the beginning rose Hiraṇyagarbha, born only Lord of all created beings.

He fixed and holdeth on this earth and heaven. What God shall we adore with our oblation?Ṛg.10-121-1

Nebula

The pictograph indicates the formation of the **Nebula** in the early primitive condition, with generation of energy in the centre. It has given birth to the solar system. The generation of energy in the centre of the nebula, atom, and the cell, constitute the base of the creation, hence, the fundamental energy has been termed as *Hiraṇyagarbh,* the Lord of the created beings. It has been indicated.

Giver of vital breath, of power and vigour, he whose commandments all the Gods acknowledge:

The Lord of death, whose shade is life immortal, What God shall we adore with our oblation? 2

The pictograph indicates the three charged particles

(electron, proton and neutron), and generation of **atom**, the building block of the creation.

The magnetic energy generates in the atom, due to the vibratory movements of the electrons around the nucleus, the magnetic energy of the atom, and electrostatic energy of the nucleus produces electromagnetic bond energy. Accordingly, the molecules, matter and the substances of high molecular weight are synthesized from the atoms. Accordingly, the living-beings, with vital breath came into the existence, the synthesis and degradation in the living-beings is controlled by the electromagnetic bond energy, through oxidation and reduction reactions. Hence, the fundamental energy has been termed as Lord of vital breath and death.

Who by his grandeur hath become Sole Ruler of all the moving world, that breathes and slumber;

He who is Lord of men and Lord of cattle, What God shall we adore with our oblation? 3

The pictograph indicates the synthesis of the molecules of DNA and **chromosome** from the atoms. It is the base of the biological world.

The high molecular weight molecules of the DNA have been synthesized from the atoms, the DNA, have synthesized the chromosomes, they under go crossing over, accordingly, from the DNA with recombination, the biological world came into the existence with evolution. Hence, the fundamental energy has been termed as the Ruler of all the living-beings.

His, through his might, are these snow-covered mountains, and men call sea and Rasā his possession:

His arms are these, his are these heavenly regions. What God

shall we adore with our oblation? 4

The blocks in the pictograph indicate the development of the territories, and the regions on the earth, where the building blocks are the atoms and the molecules. It has been indicated by the snow-covered mountains, the sea, and the heavenly regions.

By him the heavens are strong and earth is steadfast, by him light's realm and sky-vault are supported:
By him the regions in the mid-air were measured. What God shall we adore with our oblation? 5

The earth is mighty, due to the earth's geomagnetic field, the atmospheric layers in the mid air, are due the magnetosphere processes in the magnetosphere of the earth, hence, it has been expressed that the earth and heaven are strong, due to him, and atmospheric layers in the mid air are due to him.

To him, supported by his help, two armies embattled look while trembling in their spirit,
When over them the risen Sun is shining. What God shall we adore our oblation? 6

The second block in the seal, indicate the development of the communities of the living-beings symbolically. They came into the existence from the molecules of DNA. Accordingly, the living-beings, with vital breath came into the existence with evolution, the synthesis and degradation in the living-beings is controlled by the electromagnetic bond

energy, through oxidation and reduction reactions. These two reactions, oxidation and reduction operate in succession without end in cyclic manner. They control the synthesis and degradation with respiration as food, during the life; they disintegrate the body after death. They have been termed metaphorically as two-army of the fundamental energy.

Their actions and interactions in the living-beings, have been indicated by when trembling in spirit, they look like embattled.

the sun-rise, just like sun rises in the morning, and set in the evening, in the same fashion, the living-beings appear with life, and move towards their death with end of life. It has been indicated by rising sun metaphorically.

Hence the fundamental energy has been termed as Lord of vital breath and death. **How the fundamental energy feed the living-beings? It has been indicated on the reverse of the seal.** Figure 14

Figure - III

b. Reverse cat. No 25

Material terracotta

Dimension 2.0 x 1.89 cm thickness Harappa Museum. H95-2485

Meadow and Kenoyer 1997

b. A deity under pipal arch, it indicates that all the components of the creation are interlinked with the

fundamental energy, just like the branches of a tree. He is in the middle of the creation.

The arch around the deity is a symbolic expression of single unified force in the centre, and the arch is an electron microscopic structure of mitochondrial cristae, on the inner surface layer of cristae, oxysomes, also known as elementary particles are present. The oxysomes are stalked knob like structure. They are the centre of electron transport chain, and oxidative phosphorylation with generation of ATP-Adenosine Tri Phosphate. The oxidative electron coupling factor is located in the oxysomes. **It is the power house of the cell and the living-beings.**

What time the mighty waters came, containing the universal germ, producing Agni,
Thence sprang the Gods' one spirit into being. What God shall we adore our oblation? 7

A question has been asked that at which time the universal germ of life appear with mighty waters, and production of energy? Then the natural forces set in full function as one spirit into being.

He in his might surveyed the floods containing productive force and generating Worship.
He is the God of Gods, and none beside him. What God shall we adore our oblation? 8

The answer has been given, He in his might surveyed the

floods containing productive force, and generating sacrifice.

It has been depicted on the seal by the symbolic figure of the deity in the middle of the arch, just like surveying the cosmic floods, and looking towards the arch to generate the sacrifice. The knobbed arrow like structure on the arch in series, they represent the elementary particles on the surface of the inner layer of the cristae of the mitochondria, where oxidative phosphorylation, generates the productive power ATP-Adenosine Tri Phosphate, through the series of ETC electron transport chain, in the mitochondria. The oxidative electron coupling factor is located in the oxysomes- elementary particles. **It is the power house of the cell and the living-beings.**

The sun-rise is symbol of life, and energy, in the same way, the oxidative phosphorylation is the source of energy in the living-beings. It has been depicted on the seal, through the arch with similar structures in the series.

A stylized branch that has three Ṣleaves¿ projects from top of the head of men, it indicates the food of respiration-glucose symbolically.

Each end of the arch terminates in a tight swirl, it indicate the actions and interactions of oxidation and reduction chain reactions in a cyclic manner.

The oxidation and reductions operate in succession, without end in cyclic-manner. They control the synthesis and degradation in the nature, under cosmic principles. It has been indicated symbolically by generating sacrifice *to him, supported by his help, two armies,* and **termination of arch in tight swirl on the seal.**

Ne'er may he harm us who is earth's Begetter, nor he whose

laws are sure, the heavens' creator,

He who brought forth the great and lucid waters, What God shall we adore our oblation? 9

It has been expressed that the fundamental energy, has generated the earth and heaven, and brought the lucid life supporting waters, under the cosmic principles.

Prajāpati! Thou only comprehended all these created things, and none beside thee.

Grant us our heart's desire when we invoke thee: may we have store of riches in possession.

It has been expressed that *Prajāpati!* The Lord of beings has created all, who have existence.

In the beginning of the hymn, the fundamental energy has been designated as *Hiraṇyagarbh* and in the last *Prajāpati!* It is due to the generation of fundamental energy in the womb-centre of the nebula, atom, and the cell, it constitute the base of the creation, and **consciousness**, hence, the fundamental energy has been termed as *Hiraṇyagarbh,* Ṛg.10-121-1

The fundamental energy, control synthesis and degradation in the nature, through his two armies, the oxidation and reduction.

The fundamental energy support the life, through the generation of chemical energy in the mitochondria, hence, the chemical energy has been termed as *Prajāpati*-the Lord of beings.

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11. Conclusion

I. The source of creation

Figure 15

The creation has been evolved from a fundamental energy under space, time and the environmental conditions. How the creation came in to the existence and its source? Who feed the creation and held it up with homage? It has been explained under holy oil's mysterious title. It explores the secret of creation.

In the atom due to the spinning of the electrons around the nucleus the magnetic energy generates. The magnetic energy in association with the electrostatic energy of the nucleus produces electromagnetic bond energy. It has been expressed as the centre of *Amṛta* for the creation.

The creation has been described as the four horned buffalo, where four horns are symbolic expression for the Atom which has a four dimensional structure (the three fundamental particles and the fourth is generation of the magnetic energy, due to the spinning of the electrons around the nucleus.) it has the base or the essence of the creation, the essence has been termed as Ghṛta-clarified butter, it means the essence of the buffalo milk is Ghee, in the same fashion the four dimension of the atom has the essence of the creation Ṛg.4-58

The creation has been evolved from a fundamental energy under space, time and the environmental conditions. It has been indicated that the fundamental energy is complete in it self and it remains constant in all the state. *''Whence that is*

poured out'', it means one should know when it has been generated first Ath.10-8-29

The answer has been given through the first born in the womb (centre). It means due to the movement of the electrons around the nucleus and due to the movement of the cytoplasm around the nucleus in a cell it has been generated at its own first. It indicates that the components of the nature, which have been derived from the fundamental energy are complete in them selves but under go deterioration with time.

This beautiful one (F) (is) un-ageing, an immortal in the house of a mortal; for whom she (was) made, he lies; he who made (her) grew old Ath. 10-8-26.

The fundamental energy is unborn, un-ageing, as an immortal it resides in the house of mortals. It has been expressed that the synthesised components of the nature like atom and cells are complete in them selves and as a mortal they under go deterioration with ageing. In the atom and the cell the fundamental energy resides as immortal. It has been indicated that with the reproductive capacity of the cells, the life energy became young through cell division and the old cells under go ageing.

FORTH from the ocean sprang the wave of sweetness: together with, the stalk it turned to Amṛta.

That which is holy oil's mysterious title: but the Gods' tongue is truly Amṛta's centre Ṛg. 4-58-1

It has been expressed that from the ocean of universe the solar winds are the wave of sweetness. It has the stalk of fundamental charged particles; they turned in to ***Amṛta*** for the creation with formation of the atom.

In the atom due to the spinning of the electrons around the nucleus the magnetic energy generates. The magnetic energy in association with the electrostatic energy of the nucleus produces electromagnetic bond energy. It has been expressed as the centre of *Amṛta* for the creation. The nucleus of the

atom around which electrons move in the orbits and the magnetic energy generates, the nucleus has been termed as tongue.

Both their father are also their son; both the chief are also the meanest (Kaniṣṭha) of them; the one god, who has entered in to the mind, born the first, and he within the womb Ath. 10-8-28

It has been expressed that the fundamental life energy-consciousness has generated first in the atoms and in the womb. It has been termed as first born, than the fundamental energy proliferate along with the electrostatic energy of the nucleus as electromagnetic bond energy. They together have been termed as both the father and their son metaphorically. The electromagnetic energy is present in the universe and at the micro level in the atom and the cell. Hence it has been termed as chief as well as minute (*kaniṣṭha)*

Let us declare aloud the name of Ghṛta, and at this sacrifice hold it up with homage.

So let the Brahman hear the praise we utter. This hath the four-horned Buffalo emitted Ṛg.4-58-2

The essence of the creation has been described as the four horned buffalo, where four horns are symbolic expression for the Atom which has a four dimensional structure –(the three fundamental particles and the fourth is generation of the magnetic energy, due to the spinning of the electrons around the nucleus.) It has the base or the essence of the creation, the essence has been termed as *Ghṛta*-clarified butter, it means the essence of the buffalo milk is Ghee-clarified butter in the same fashion the four dimension of the atom has the essence of the creation Ṛg 4-58

Four are his horns, three are the feet that bear him; his heads are two, his hands are seven in number.

Bound with a triple bond the Steer roars loudly: the mighty God hath entered in to mortals Ṛg.4-58-3

The four horns is a symbolic expression of the DNA, where four horns represents –four base of the DNA., two head represents two strips of the DNA, three legs represents- a triplet code of the DNA, the seven hands represents seven bonds in between triplet nucleotide pair, with its triple bond the DNA roars loudly just like a steer. It has entered in to mortals (living-beings).

That oil in triple shape the Gods discovered lay down within the Cow, concealed by Paṇis.

Indra produced one shape, Sūryā another: by their own power they formed the third from Vena Ṛg. 4-58-4

The oil in triple shape-the *Indra-* has produced one shape in the form Electrostatic energy of the atom another shape has been produced by the *Sūryā*-sun in the form of the charged particles, by their own power they have formed the third from *Vena*. It means through the generation of the sound during the movements of the charged particles, the third shape of oil in the form of magnetic energy has been generated at its own. In this way formation of the atom has been indicated.

The mysterious oil flowing from the universe has been used to express the solar winds flowing from the sun. It has been indicated that the holy oil-solar waves have three basic fundamental charged particles- electron, proton and neutron.

The Gods have discovered laid down within the cow, concealed by the paṇis. It has been expressed that the creative power of the charged particles is in the Atom. The charged electrons moves around the nucleus and generates the magnetic energy, this phenomena has been termed as that Gods-charged particles have discovered the cow lay down within them. The cow is a metaphor for creative power of the charged particles, which is hidden in them.

The formation of the atom is associated with the electrostatic energy of the nucleus. Hence it has been said that *Indra* has produced one shape.

The other shape by *sūryā*-it means the source of the

charged particles is the sun.

The third shape from *Vena*- Due to the spinning and vibrations of the electrons around the nucleus magnetic energy generates, it has been explained as that the third shape from *Vena*, which is hidden in them just like *Paṇis*-concealed the wealth.

From inmost reservoir in countless channels flow down these rivers which the foe beholds not,

I look upon the stream of oil descending, and lo! The Golden Reed is there among them Ṛg. 4-58-5

These countless channels are flowing from the universe on the earth just like the rivers. No body can check them the golden reed is among them. It means the cosmic principle is among the fundamental particles.

Like rivers our libations flow together, cleansing themselves in inmost heart and spirit.

The streams of holy oil pour swiftly downward like the wild beasts that fly before the bowman Ṛg.4-58-6.

Just like the rivers our libations flow together, it has been expressed that the triple shaped oil is also flowing together from our sacrifice through heart and spirit, it pour out swiftly just like the wild beast fly before the bow man. The release of the waste material and the gases from living-beings has been indicated.

As rushing down the rapids of a river, flow swifter than the wind the vigorous currents,

The streams of oil in swelling fluctuation like a red courser bursting through the fences Ṛg.4-58-7

The vigorous currents flowing from the universe are just like rapid rivers, flowing swifter than the wind. They cross the obstacles just like red courser bursting through the fences.

Like women at a gathering fair to look on and gently

smiling, they incline to Agni.

The streams of holy oil attain the fuel, and jatavedas joyfully receives them Ṛg.4-58-8

It has been expressed that just like a fair woman welcome in the gathering. In the same fashion the *Jataveda Agni*-terrestrial fire receives the flowing currents.

As maidens deck themselves with gay adornment to join the bridal feast, I now behold them.

Where Soma flows and sacrifice is ready, thither the streams of holy oil are running Ṛg.4-58-9

It has been expressed in an anthropomorphic manner that just like the maiden deck them selves for a bridal feast and I behold them, in the same fashion I behold the flowing currents, where in my body *Soma*-magnetic life energy-consciousness is flowing and the sacrifice is ready.

Send to our eulogy a herd of cattle: bestow upon us excellent possessions. Bear to the Gods the sacrifice we offer: the streams of oil flow pure and full of sweetness Ṛg. 4-58-10

It has been desired that for the prosperity on the earth, the environment may remain clean, unpolluted and sweet.

The universe depends upon thy power and might within the sea, within the heart, within all life.

May we attain that sweetly-flavored wave of thine, brought, at its gathering, over the surface of the floods Ṛg. 4-58-11

It has been expressed that what ever is present in the creation depends upon the power of the currents flowing from the universe.

a. Aditi- Infinite nature

The fundamental particles constitute the *Aditi*-micro nature and from the micro nature with the evolution of the solar

system the *Aditi*- infinite nature came in to the existence with its full functions. The *Aditi*-nature is complete in it self and self regulated. The living beings have been expressed as *Pañcjana*-the association of five gross elements. It has been expressed that in this world what is and what is to be is nature only. The concept is synonym to our modern ecology..

Aditi is heaven, Aditi is mid air, Aditi is the mother the Sire and son.

Aditi is all Gods, aditi five classed men, Aditi all that has been and shall be born Ṛg.1-89-10

b. DNA-Cow omni-form

Yama beyond, below Vivasvat beyond that do I see nothing whatever; into Yama has entered my sacrifice, Vivasvat stretched after the worlds (bhū) Atharvaveda 18-2-32

The universal occurrence of genetic material DNA in the living-beings has been expressed; it is synonym to our modern knowledge of Genetics. In the biological world, which is before us, I see nothing beyond *Vivasvat* - DNA. From the DNA the chromosomes have been synthesized. They have stretched in the world in the form of food chains and the food webs, it has been expressed.

XXXX

II. Vedic Genetics

Introduction **Figure 16**

The living-beings exhibit same functions at cellular level, the cell division start from the chromosomes and ends with synthesis of chromosomes.

Four are his horns, three are the feet that bear him; his heads are two, his hands are seven in number.

Bound with a triple bond the Steer roars loudly: the mighty God hath entered into mortal's Ṛg.4-58-3

The four horns is a symbolic expression of the DNA, where four horns represents-four base of the DNA, two head represents two strips of the DNA, three legs represents- a triplet code of the DNA, the seven hands represents seven bonds in between triplet nucleotide pair, with its triple bond the DNA roars loudly just like a steer. It has entered in to mortals (living-beings).

Yama beyond, below Vivasvat ṭ beyond that do I see nothing whatever; into Yama has entered my sacrifice; Vivasvat stretched after the worlds (bhū). Atharvaveda 18-2-32

It has been indicated that in the biological world, which is before us, I see nothing beyond *Vivasvat*-DNA, from him *Yama* chromosomes have been synthesised. They have been stretched in the world in the form of food chains and the food webs of the living beings in the nature, it has been indicated.

a. Ṛbhu-Cell and DNA- Tvaṣṭā

In the Vedic terminology the cell has been termed as *Ṛbhu*, literary it means *Ṛ*- to move and bhu - to be, they follow each other and in succession they proceeds towards evolution

The cell has been termed as *Ṛbhu* and the different stages of the cell have been termed as *Ṛbhu, Ṛbhukṣan Vibhvan and Vāja.*

The Nucleus has been termed as *Bṛhaspati,* the DNA has been termed as *Tvaṣṭā* and *Vivasvat,* the cell division has been expressed as re newel of parents.

In the same fashion the chromosome has been termed as *Yama,* which has the information for life and death. The two four eyed brindled dogs of *Yama* is a symbolic expression for the DNA, which constitute the Chromosome, where two dogs represents two strips of the DNA and four eyes is a symbolic expression for the two base pairs of the DNA. The DNA has been termed as *Tvaṣṭā and Vivasvat*. The Duplicating DNA has been expressed through the metaphor of *Sinīvālī*.

The shape of the single loop of the DNA has been indicated through her broad hips, the two dividing DNA strips have been designated as her fair arms and the projecting nucleotides have been expressed as fair fingers.

The single loop of the DNA look like the full moon, it has been expressed through *Rākā.* The duplicating DNA strips exhibits crescent shaped structures, it has been expressed by saying *Kuhu and Gangu*, it means the shape of the dividing strips looks like first day of the moon.

The nucleotide pair has been termed as *aśvins.* The triplet code has been termed as *triṣira.* The hydrogen triple bond has been termed as *Trita or Trika* and double bond as *Duka*, they together as *Trika-Duka.*

The structure and functions of the DNA has been expressed symbolically through the family relationship.

b. Modern concept

All the living creatures exhibit the same functions at the cellular level, under which energy transformation, growth and reproduction are their natural qualities. In all the living-beings RNA-Ribose Nucleic Acid or DNA-De-oxy Ribose Nucleic Acid is the main genetic material, which decides the course of life. The credit for discovering the De-oxy Ribose Nucleic Acid goes to the Watson and Crick. It has brought a revolution in the field of biotechnology.

In the biology it is a known fact that in the human beings there are 23 pairs of chromosomes, in which one pair *xx, or xy*, which decides the gender and one pair of chromosome have the information for the life and death. It regulates the life through the Genetic hereditary characters. The chromosomes consist of DNA a characteristic feature of the DNA is the fixed content and sequence of nucleotide pairs along the entire length of its double helix. In this respect any one species of DNA differ from the other species. Accordingly the species diversity is there in the nature with different hereditary characters. A definite number of nucleotides constitute a gene, which have the information about the synthesis of specific kind of the proteins and the enzymes regulate the metabolic reactions.

The DNA is having only four types of bases Adenine, Guanine, Thymine and Cytosine they are arranged on the DNA spiral strips in different sequences. The two base Adenine and Guanine are known as purine and two base Thymine and Cytosine are known as pyrimidine, purine and pyrimidine are complimentary with each other, such as Adenine= Thymine and Guanine ≡ Cytosine and vice versa. These complimentary bases are bind with each other by hydrogen double bond and triple bond. The sequence of three bases, called a triplet known as genetic code, with four kinds of bases in the DNA. There are 64 codes, which are known as genetic code, which is a code for amino acid and constitute a language code for the protein synthesis. The DNA through transcription synthesise mRNA-messenger Ribose Nucleic

Acid and mRNA through translation synthesise proteins.

c. The Tvaṣṭā- DNA De oxy Ribose Nucleic Acid

The living cell has been termed as *Ṛbhu*, nucleus as *Bṛhaspati*, chromosomes as *Yama*, genetic material as *Tvaṣṭā* and *Vivasvat*.

The structure of DNA De oxy Ribose Nucleic Acid has been expressed symbolically, through association and interrelationships of the different forms with one another. Their relationship has been expressed through the family relationship as parents, mother, father, wife, son and daughter, union of two has been indicated through *Aśvins,* it represents a nucleotide pair of DNA. The 64 codes may constitute a language code for recording the thoughts and deeds of an individual, which is imperishable and is stimulated by the words and the thought.

The genetic material DNA is present universally in all the living-beings. It has been expressed as shaper of all the creatures. It has all the information of life.

Tvaṣṭā the lord hath made all forms and all the cattle of the field:

Cause them to multiply for us Ṛg.1-188-9

The DNA has been termed as *Tvaṣṭā*, who is shaper of all creatures with multiplication, hence it has been termed as omni form (*Viśvarupa*); it means the DNA is present in all the living beings. For *Tvaṣṭā*, he who knows each sacred song, brought thee to life, pre eminent o'er all the things that be.

It has been expressed that *Tvaṣṭā* – DNA is a supreme genetic material, which is the source of life, and it bears the information of life and death.

Guilt-avenger is Bṛhaspati, who slays the spoiler and upholds the mighty law Ṛg. 2-23-17

The DNA, synthesize the chromosomes and the chromosomes synthesize the nucleus, hence it has been said

that *Tvaṣṭā begot Bṛhaspati*. The *Bṛhaspati represent nucleus,* which has been expressed as regulator and guide.

Run thou past the two four eyed brindled dogs of Saramā, by a happy road; then go unto the beneficent Fathers, who revel in common revelry with Yama. Atharvaveda 18-2-11

What two defending dogs thou hast, O Yama, four eyed, sitting by the road, men watching, with them, O king, do thou surround him; assign to him well being and freedom from disease Atharvaveda 18-2-12

The structure of the DNA has been indicated symbolically through *Yama* (chromosome), the *Yama's* two brindled dogs four eyed watch the path of man, it means they represents two helix of the DNA and the four eyes represents two base pairs, they watch the path of man. It means the life of an individual get regulated by the information, which is there in the coded language of the DNA, it has been said that O king of life *Yama*-chromosome, guide him for well being and freedom from disease. It means all information about the life is in the chromosomes.

Broad nosed, feeding on lives, copper colored, Yama's *two messengers go about after men ((*jana*); let them give us back here today excellent life(*asu*) to see the sun.* Atharvaveda*, 18-2-12*

It has been indicated that *Yama's two messengers go about after men.* The two messenger are two strips of DNA, which through hereditary characters regulate the physical development of the body, and in its language code it records the deeds of an individual, which go about after a man. It means after the death of an individual, the language code of his deeds is imperishable, which give him back life through opening of the same language code on the duplicating DNA in the womb, where development of the body is according to the hereditary characters and thought energy of previous birth through the language of the DNA decides the course and fate

of life.

d. Aśvin- Nucleotide pair

The language of the DNA decides the course of life. The thoughts and actions of an individual are recorded in the coded language of the DNA with birth simultaneously

The DNA consists of nucleotide pairs, which are united with each other through the hydrogen bonds, a nucleotide pair has been expressed as *Aśvin*, which is attached to two strips of DNA. Accordingly the *Aśvin* -nucleotide pair has been expressed as son of two Mother metaphorically.

The aids wherewith the Wanderer, through his offspring's might, or the Two Mothered Son shows swiftest mid the swift,

Wherewith the sapient one acquired his triple lore, - Come hither unto us, O Aśvins*, with those aids.*

The Aśvins represents the nucleotide pair Ṛg. 1-CXII-4

Flying with falcons, may your chariot, Aśvins, most gracious, bringing friendly help, come hither,-

Your chariot, swifter than the mind of mortal, fleet as the wind, three seated, O ye mighty Ṛg. 1-CXVIII-1

The nucleotide pairs of DNA are very active in the triplet form, it has been indicated through three seated, they divide very rapidly, hence it has been said that their speed is falcon like and swifter than the mind, their function in the cell are related with oxidation and reduction reaction in side the cell, they speed up the process of DNA duplication, it has been indicated by *Aśvin*-union of two, where each reaction in succession nourishes with synthesis or degradation, hence it has been said that they nourishes the infant Ṛg.1-95-1

5. To fair goals travel two unlike in semblance: each in succession nourishes an infant.

One bears a God like Babe of golden color; bright and fair-shining is he with the other Ṛg. 1-95-1

The function DNA synthesis and duplication in the cell accompanied by reversible oxidation and reduction reaction, which speedup the process of duplication, it has been indicated by *Aśvin*-union of two, where each reaction in succession nourishes with synthesis or degradation, hence it has been said that they nourishes the infant Ṛg.1-95-1

Tvaṣṭā's ten daughters, vigilant and youthful, produced this Infant borne to sundry quarters.

They bear around him whose long flames are pointed, fulgent among mankind with native splendour Ṛg.1-95-2

The function of the oxidation and reduction has deeply concern with the DNA, it has been indicated through *Tvaṣṭā's* ten daughters, which are two double bond and two triple bond of hydrogen of the four nucleotide pairs of DNA.

e. Role of Trita-Triple bond

May we gain wealth, subduing with thy succour and with the Arya, all our foes, the Dasyu.

Our gain was that to Trita of our party thou gavest up Tvaṣ ṭā's son Viśvarupa Ṛg.2-11-19

The synthesis of DNA and its duplication is mainly dependent on its triple hydrogen bond, which has been indicated through *Trita*-Triple bond, only with the knowledge of *Trita* and its function, it has been established that *Tvaṣṭā*-DNA acts in the nature through *Trita*, due to which its omni-form nature that all the living-beings have DNA De oxy Ribose Nucleic Acid or RNA Ribose Nucleic Acid has been exhibited with biodiversity in the nature.

When Tvaṣṭā deft of hand had turned the thunderbolt, golden with thousand edges, fashioned more skillfully,

Indra received it to perform heroic deeds. Vṛtra he slew, and forced the flood of water forth Ṛg.1 -85-9

The triple and double hydrogen bonds play a major role in the synthesis of mRNA and DNA duplication, which has been expressed by the *Trikadruka* (=, ≡) - the two double bond and a triple bond of hydrogen, they regulate the DNA replication. and the electrostatic charge play its role with the help of magnetic energy through the formation and breaking of the bonds, which is thunderbolt of *Indra.* It has been expressed by asking *Indra* to drink *Soma* in an anthropomorphic manner. It is just like a heroic act of the *Indra.*

He slew the *vṛtra* - he removes the obstacle and released the water during the reaction.

Come to us with your chariot triple seated, three wheeled, of triple form that rolled lightly.

Fill full our cows, give mettle to our horses, and make each hero son grow strong, O aśvins Ṛg.1-CXVIII-2

The double helical DNA is the chariot of the aśvins where nucleotides are arrange in triplets, which constitute a triplet genetic code, hence, they are triple seated, it represent triplet code, three wheeled, it means its base sequence is repeated with triplets and it has three forms in the nature.

Tvaṣṭā disposed (vi-dha) the garment for beauty, by direction of Brihaspati, of the poets; therewith let Savitā and Bhaga envelop this woman, like Sūryā, with progeny Atharvaveda*,* 14-1-53

Tvaṣṭā makes a wedding-car for his daughter; by reason of this, all this creation comes together; the mother of Yama, wife of great Vivasvat, being drawn about, disappeared 18-1-53

Tvaṣṭā makes a wedding-car for his daughter; by reason of this, all this creation comes together; the mother of *Yama*, wife of great *Vivasvat*. The synthesis of the complimentary base pairs of the new DNA has been expressed in this fashion ''having made one of like colour, they gave her to *Vivvasvat''*

They hid away the immortal (bio soul) one from mortals; having made one of like color, they gave her to Vivasvat just like his wife*; what that was carried also the two Aśvins; and Saraṇyu deserted twins (Pair of chromosomes)* Atharvaveda 18-2- *33.*

The Tvaṣṭā- DNA synthesize new DNA from the DNA template, the same has been termed as the bridal car. The single strand of the DNA template has been termed as the daughter of *Tvaṣṭā* and the new DNA has been termed as *Vivasvat*, The DNA template has been termed as the daughter of the *Tvaṣṭā*-DNA and the same has been termed as wife of the *Vivasvat*- new DNA. Which has been synthesized from the DNA template, his wife- the DNA template due to the synthesis mRNA lost her identity, hence it has been said that his wife *Saraṇyu* daughter of *Tvaṣṭā* has disappear. It means the daughter represents the DNA template and after the synthesis of the mRNA, the DNA lost its identity, which has been expressed metaphorically. The *Saraṇyu* carried also the two *Aśvins,* it means the DNA template synthesise new DNA with complimentary base pairs. Accordingly the DNA synthesise the pairs of the chromosomes, it has been expressed by that *Saraṇyu* deserted two twins.

He is the father of *Aśvins* (nucleotide pair), it means *Aśvins* nucleotide pairs have been synthesised from the parent DNA. He is the father of *Yama*- *Yamī* (Twinned pair of chromosome) It means chromosomes have been synthesised from the DNA, it has been indicated by saying that *Saraṇyu* deserted two twins. In this way the formation of the chromosome pair has been indicated symbolically.

He is the father of *Manu*-human race. It indicates that DNA is responsible for the evolution of the human species

With Trikadrukas it purifies it self six wide ones verily great one; tristubh, gāyatrī, the meters: all those (are) set in Yama Ath. 18-2-6.

The activity of the DNA has been expressed through *Trikadruka (=,≡),* it represents a triple bond and a double bond of hydrogen, through which the complimentary base pairs are joined with each other. 'The six wide ones' represents the three base pairs. 'The verily great one' it indicates a triplet language code on the DNA template. The language of the DNA has been expressed through the *tristup, Gāyatrī* and the meters: all those (are) set in *Yama*. It means the information is in the chromosome.

The triple and double hydrogen bonds play a major role in the synthesis of mRNA and DNA duplication, it has been expressed by the *Trikadruka (=,≡)* and the electrostatic charge play its role with the help of magnetic energy through the formation and breaking of the bonds, it has been indicated by asking *Indra* to drink Soma in an anthropomorphic manner. It has been described as heroic act of the *Indra*

He slew the *vṛtra* and released the water during the reaction 4

The reactions are reversible and operate in succession with oxidation and reduction.5

The well organized system of DNA duplication is due to the triple bond, it has been termed as *Trita*.6

A single loop of DNA has four base pairs, having two, double bond and two, triple bond, the total is ten. It has been indicated by *Tvaṣṭā* 's ten daughters.[1]

Originally the DNA has only four types of base, the three bases constitute a genetic code means a code for an amino acid for the synthesis of protein, there are 64 codes. In the Vedas the triplet genetic code has been termed as three headed demon or *Triṣira* the son of *Viśvarupa* (omni-form)

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1. Tvaṣṭā's ten daughters, vigilant and youthful, produced this Infant borne to sundry quarters.

   They bear around him whose long flames are pointed, fulgent among mankind with native splendour Ṛg. 1-95-2

Tvaṣṭā; till the triplet code is in association with the DNA, it is unproductive. In the nature one of the strand of the DNA act as a template for the synthesis of mRNA in the presence of the enzyme DNA polymerase. Which have the coded genetic information for the protein synthesis, the base sequence in mRNA is complimentary to the base sequence in parent DNA. The synthesis of mRNA for the protein synthesis is its productive power, which initiates the protein synthesis, the same has been expressed through *Trita-* triple bond, which is the slaughter of the three headed, six eyed demon (three complimentary base pairs) Ṛg.10 -99-6

Lord of the dwelling, he subdued the demon who roared aloud, six eyed and triple headed.Trita made stronger by the might he lent him, struck down the boar with shaft whose poison was iron Ṛg.10-99-6

Well skilled to use the weapons of his father Āptya urged on by Indra fought the battle then Trita slew the foe seven rayed three headed and freed the cattle's of the son of Tvaṣṭā Ṛg.10-8-8

The release of the cattle's indicates the productivity of the mRNA, which takes part in protein synthesis through the genetic code. The triplet code generates due to the separation of triplet base through breaking the two-double and a single triple bond.

The weapon of the *Trita* is bond energy it has been indicated by *Indra*-electrostatic energy and *Āptya* water. The triplet code generates due to the separation of triplet base code through the breaking of the two double and a single triple hydrogen bond with hydrolysis. *Fought the battle then Trita slew the foe seven rayed three headed.* The breaking of the bonds and the removal of the triplet code has been indicated through the seven rays and three head. Accordingly *Tvaṣṭā's Viśvarupa* -the omni-form nature has been expressed due to the duplication of the DNA in a systematic manner. The DNA is universally present in the living organisms. It acts in the

nature through the chromosome-*Yama* and new DNA from the DNA template *Vivasvat*. In this fashion the DNA spread in all the directions in the form of living-beings. It has been expressed as the cattle's of the son of omni-form *Tvaṣṭā* symbolically. The *Trita* freed the cattle's of *Tvaṣṭā*- It indicates the replication of the DNA with breaking of the triple bond with hydrolysis.

Lord of the brave Indra cleft him in pieces, which sought to gain much strength and deemed him mighty. He smote his three heads from his body seizing the cattle of the omni form Tvaṣṭā. Rg. 10-8-9.

The battle of *Indra* is a symbolic expression for the activity of the bond energy. The synthesis and duplication of the DNA molecule depends on the breaking of the hydrogen double bond and triple hydrogen bond energy. The triple bond of the hydrogen is strong and mighty. It binds the nucleotide pairs in the DNA with strong hold. The removal of the triplet code has been indicated metaphorically that *lord of brave Indra cleft him in pieces. He smote his three head* is a symbolic expression for the triplet code. The *seizing the cattle of the omni-form Tvaṣṭā* is a symbolic expression for the locking up of the DNA replication by the triple hydrogen bond.

Yama beyond, below Vivasvat ṭ beyond that do I see nothing whatever; into Yama has entered my sacrifice; Vivasvat stretched after the worlds (bhu) Atharvaveda 18-2-32

It has been expressed that in the biological world, which is before us, I see nothing beyond *Vivasvat* - DNA. From the *Yama* chromosomes have been synthesized. They have stretched in the world in the form of food chains and the food webs. It has been expressed that in the Biological world, the DNA is universally present.

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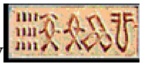
III. Evolution of Human species

Figure 1 **A group of tiny seals - Infinite to finite**

Figure 17

1 I II III IV 

V VI

The group of tiny seals expresses the evolution of the creation from the pre-cosmic condition to the evolution of man symbolically in chronological order.

The hollow space on the button seal shows the pre cosmic condition, above it transverse divergent lines express the formation of the charged particles with movement.

The group of tiny seals excavated at one place explores the stages in the evolution of the creation, and genetic evolution of the human species on the earth.

One I II III IV

V VI

The button seal expresses the evolution of the creation from the pre-cosmic condition to the cosmic condition.

I 1 **the button seal - the figure express the evolution of the creation from pre-cosmic to cosmic condition in the early primitive universe.**

The button seal symbol, the button seal indicate origin of the biotic and a-biotic components of the nature from the atmospheric ocean in two different directions. The hollow structure in the centre is symbolic atmospheric ocean and the bifurcation of the hollow structure into two different directions indicates the evolution of the biotic and a-biotic components in two different directions.

Atharvaveda 13-1-52

2 **The hollow space** - it is the qualm and quiet pre-cosmic condition of the fundamental energy, when there was

nothing in existence only deep darkness was there. There was only one force, which began to disintegrate from infinite to finite with its back ground in the infinite cosmos Rig-Veda 10-129 1, 2, 3.

Rig-Veda 10-129- 2

3. **The existent's kinship ş the single unified**

It has been expressed that every thing, which has existence is connected with the single unified force.

It has been expressed that the movement of the charged particles with free action and mighty forces had extended transversely.

Sages who searched with their heart's thought discovered the existent's kinship in the non-existent.

Rig-Veda 10-129-4

Transversely was their severing line extended: what was above it then? And what below it

There were begetters: there were mighty forces, free action here and energy up yonder. 10-129-5

4. **The animal motif represents the imaginary fundamental energy in the cosmos.**

5. **The incense burner**

The incense burner below the neck is symbol of light and energy, which indicate sun as the source of energy and light on the earth.

Sun is the soul and eye of the creation Rig-Veda 1-115-1

6. **Pre-cosmic - Nebula -** the hollow structure in the middle symbolize the pre-cosmic condition with origin of <u>*Hiranyagarbha-*</u> the golden embryo- <u>Nebula</u> *Rig-Veda 10-121-1*

Then was not anyṭexistent nor existent: there was no realm of air, no sky beyond. What covered in and where? And what gave shelter? Was water there, unfathomed depth of water? Rig-Veda 10-129-1

Darkness there was: at first concealed in darkness this all was in discriminated chaos.

All that existed then was void and form- less: by the great power of Warmth was born that Unit Rig-Veda 10-129-3

7. **The *gāyatrī*-** the triangle it symbolize the generation of three charged particles in the early primitive condition of Cosmos.

The Gāyatrī, hath, they say, three bands for kindling: hence it excels in majesty and vigour Rig-Veda 1-164- 25.

8. **The golden embryo-** the dot at the base of the triangle symbolize the generation of *Hirṇayagarbha* - golden egg 121, it signifies the generation of energy in the <u>Atom</u>.

In the beginning rose Hiraṇyagarbha, born only Lord of all created beings.

He fixed and holdeth on this earth and heaven What God shall we adore with our oblation? Rig-Veda 10-121-1

The Hiraṇyagarbha - golden egg signifies the generation of energy in the womb of Nebula and in the womb of Atom.

Figure II ş **four horned buffalo emitted**

II 1 **four feet and four frame - biotic and a-biotic components** - the symbol with four dots on the four corners and the cross The four dots on four corner is the symbol for the generation of four components of the atom (electron, proton, neutron and the generation of the energy in the atom), which constitute the base of the creation, the four lines in the square is the symbol for the four bases (Adenine, Guanine, Thymine, and Cytosine), which constitute the base of the DNA and the living-beings. Rig-Veda 4-58-2, 3

Bhaga fashioned the four feet; Bhaga fashioned the four frame pieces (? Usyala; Tvaṣṭā adorned (pic) the straps (? vardhna) along in the middle; let her be to us of excellent omen Atharvaveda 14-1-60

Symbolically the four feet and four frames express the four components of atom, and the four frames express the four bases of the DNA. They constitute the base of the living and non-living objects. The *Tvaṣṭā* is the shaper of the forms with triple bond in the centre of the two strips of the DNA Atharvaveda 14-1-53

The well developed cell in the nature has been expressed as well flowered, all-formed bridal- car metaphorically. It has been prayed to sun to make a bridal-car pleasant to husbands. Metaphorically the husband is the term for the organic carbon, the chemical energy has been expressed as wife, and the cell is bridal-car.

Rig-Veda 1-161-7

The synthesis of the genetic material has been expressed as a horse, and the development of the photosynthetic system in the primitive condition has been expressed as horse out of horse. Accordingly the cell became well equipped on the journey in the nature.

Figure II 2 **the ribosome translate the DNA code** - the ribosome translate the DNA code into life, and regulate the life of the living-beings by DNA replication.

Tvasta the lord hath made all forms and all the cattle of the field:

Cause them to multiply for us. Rg.1-188-9

Rig-Veda 2-23-17.

Tvasta the lord hath made all forms and all the cattle of the field cause them to multiply for us. Rig-Veda 1-188-9

Indra hath yoked his bays, the AŚvin's car is horsed; Bṛhaspati hath brought the cow of every hue. Ye went as Ṛbhu, Vibhvan, and Vāja to the Gods. Rig-Veda 1-161-6

The AŚvin - nucleotide pairs of the DNA have been joined with each other by the hydrogen bonds. It has been expressed by the Indra has yoked his car and the *AŚvin's car is horsed,*

Bṛhaspati hath brought the cow of every hue- the nucleus regulate the metabolic reactions in the cell, accordingly each and every component of the cell has been synthesized, they brought forward the different stages of the cell in nature as *Ṛbhu*-cell, *Vibhvan*- eminent*, and Vāja*-young cell.

Figure II **3** **two mothered son -** the nucleotide pairs on

DNA - the symbol is ladder like model of DNA with nucleotide pairs.

The aids wherewith the Wanderer, through his offspring's might or the two mothered Son shows swiftest mid the swift Rig-Veda 1-112-4

Two mothered son is metaphoric expression for the nucleotide pair of the DNA. Are two mothers in between them the nucleotide pair?

Figure III ş *Soma pressed Soma*

Hither is come the Ṛbhu's gift of riches; here was the drinking of the well ş Soma pressed Soma. Since by dexterity and skill as craftsman ye made the single chalice to be fourfold

It signifies the inherent self generated source of DNA replication in four fold manner.

Role of messenger mRNA

III1 DNA replication and transcription of the code the duplicating DNA with transcription, and the single strand of mRNA on one side

III 2 Duplicating DNA

III 3 **mRNA**

III 4 **Saranyu deserted twins-** The DNA replication and pairing of chromosome. *Saraṇyu deserted twins-* Pairs *Atharvaveda 18-2- 33*

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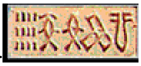
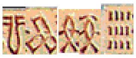
III 5 **chromosomal inversion** - the chromosomal inversion and loop on one side of the chromosome with formation of new chromosome

DNA transcribes the message into the mRNA, and single strand of DNA on one side. The mRNA has the message for the DNA replication .

The replicating DNA synthesize chromosome, the chromosome undergo inversion ., which leads to evolution in nature.

Figure IV- **gene inter action** 

IV 1 **the genomic chromosome**

IV 2 **DNA replication**

The symbol is for the DNA replication, through which they synthesize the gametes during the sexual reproduction.

IV 3 **Four ladles-** the cell division, first division and second division,

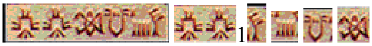
6. The sacrifice ladle, wrought newly by the God Tvaṣṭā's hand (DNA) Four ladles have ye made thereof.

The sacrificial ladles (developing cell) was made new by *Tvaṣṭā* - genetic material, it means first genetic material has

synthesized in side the cell, it has given the capacity for cell division during the primitive anaerobic conditions and in turn the cell has been divided in to four.

IV 4 **gene interaction**

The symbols show the stages in the evolution of the living-beings. The development of the physical body is due to the mitotic and meiotic cell division. The gene interaction decides the trend of evolution. (Mendel's laws of inheritance)

Figure V 

With Trikadrukas it purifies it self - the two forms of DNA and the role of the triple bond & double bond in the evolution of human-beings

With Trikadrukas, it purifies it self six wide ones verily great one; tristubh, gāyatrī,, the meters: all those (are) set in Yama Atharvaveda 18-2-6.

V 1 **Trikadrukas** *(=, ≡)* - the two double bond and a triple bond of hydrogen, they regulate the DNA replication.

V 2 **the triplet code** - the symbol is for the triplet code on the messenger RNA, which carry the message for the Protein translation.

Flying with falcons, may your chariot, Aśvins, most gracious, bringing friendly help, come hither,-

Your chariot, swifter than the mind of mortal, fleet as the wind, <u>three seated</u>, O ye mighty Rig-Veda 1-CXVIII-1

Rigveda1-95-1

V 3 **the single chalice to be fourfold** - it expresses that the with DNA replication the cell divide in four fold manner.

Hither is come the Ṛbhu's gift of riches; here was the drinking of the well ṣ Soma pressed Soma. Since by dexterity and skill as craftsman ye made the single chalice to be fourfold

V 4 **the genomic chromosome with gametes**

V 5 **crossing over in the cell**

The chromosomal crossing over in the cell is important for the evolution in the nature, with generation of the two different types of the DNA in the cell body.

V 6 **the two forms of DNA** - two types of the DNA for the synthesis of XX & XY chromosome. The triple bond has been depicted on the arms and the triple bond has been depicted in the middle.

With Trikadrukas, it purifies it self six wide ones verily great one; tristubh, gāyatri, the meters: all those (are) set in Yama Atharvaveda 18-2-6.

The activity of the DNA has been indicated through *Trikadruka (=, ≡),* who represents a triple bond and a double bond of hydrogen, through which the complimentary base pairs are joined with each other. 'The six wide ones' represents the three base pairs.

The chromosomal crossing over leads to evolution of the different gametes, and the synthesis of the Genomic chromosome. Accordingly, the human-species has evolved on the earth.

VI **The omni form (*Visvarupa*)** - the evolution of human species from XX and XY

The bull, the youngling with the hump, hath frolicked, the strong and never-ceasing Calf hath bellowed.

Bringing our offerings to the God's assembly, he moves as Chief in his own dwelling-places Rig-Veda 10-8-2

Rig-Veda 1-188-9

The DNA has been termed as *Tvaṣṭā*; he is shaper of all creatures with multiplication. It has been termed as omniform (*Visvarupa*); it means the DNA is universally present in all the living beings.

Rig-Veda 2-23-17.

VI 1 **the genomic chromosome -** the genomic chromosome has all the information for the life.

VI 2 **the gametes - the** formation of the gametes has given the ways for evolution with genetic recombination.

VI 3 **XX & XY chromosome** - the human figures expresses the evolution of male and female from the XX and XY chromosomes and the gametes.

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